DOCUMENT RESUME

ED 139 093 EA 009 506

AUTHOR Gardner, Dwayne E.; And Others
TITLE A Comprehensive Facilities Study. North Ridgeville City School District.
INSTITUTION Ohio State Univ., Columbus. Coll. of Education.
PUB DATE May 76
NOTE 122p.

EDRS PRICE MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS *Educational Facilities; Educational Finance; Elementary Secondary Education; Enrollment Influences; *Enrollment Projections; *Evaluation; *Facility Utilization Research; Instructional Programs; *School Buildings; Tables (Data)
IDENTIFIERS North Ridgeville City School District OH

ABSTRACT

This report is the culmination of a study to determine the nature of the existing and desired educational program in the North Ridgeville School District and the school plant facilities that will be needed to house such a program, determine the number of children the school district may expect to house in the next five years, determine the adequacy of existing facilities to house anticipated enrollments and the desired program, and determine the funds available to institute school plant improvements. In evaluating each of the existing school plants, an evaluation guide was used that considers ten dimensions of a building--adequacy, suitability, safety, healthfulness, accessibility, flexibility, efficiency, economy, suitability for expansion, and appearance. Recommendations of the study group are included. (Author/IRT)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED139093

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A COMPREHENSIVE FACILITIES STUDY
NORTH RIDGEVILLE CITY SCHOOL DISTRICT

Developed For
THE SCHOOL DISTRICT STAFF
Dr. Roger Beitler, Superintendent

THE BOARD OF EDUCATION
Mrs. Jeanne Shultzaberger, President
Mr. Daniel Taylor, Vice President
Mr. John P. Tracey
Mr. Donald Hobson
Mr. John Porter

and

THE CITIZENS OF THE NORTH RIDGEVILLE CITY SCHOOL DISTRICT

by

Dwayne E. Gardner, Projector Director
Barbara Bachman, Research Associate
Edmond LeBlanc, Research Associate

Faculty of Educational Administration
College of Education
The Ohio State University
Columbus, Ohio

May, 1976

EA 009 506

TABLE OF CONTENTS

Page

PART I: THE SETTING. 2
Saturation Analysis. 4

PART II: THE NEED. 7
The Qualitative Aspect of Need: The Educational Program
General Characteristics 7
School Size 7
The Elementary School Program 8
The Middle School Program 9
The Senior High School Program. 10
Overall District Conceptualization of Instruction 11
The Quantitative Aspect of Need: School Enrollments and Operating Capacities
A. School Enrollments. 12
Factors Affecting Enrollment Change 12
Future Enrollments. 17
Analysis of Trends. 21

B. Operating Capacity of the North Ridgeville City Schools .28
ELEMENTARY SCHOOL FACILITIES. 28
Operating Capacity. 28
Policies and Standards. 29
Kindergarten Calculation. 30
Grades One Through Six Calculation. 31
Potential Operating Capacity. 32
SECONDARY SCHOOL FACILITIES 33
OPERATING CAPACITY RESULTS. 38
Middle School. 38
Senior High School Facility 40
Recapitulation 45

PART III: FACILITY EVALUATION. 48
Facility Evaluation, Existing School Plant
Functional Characteristics of the School Plant. 50
Fields-Sweet Elementary School. 52
Lear North Elementary School. 58
Liberty Elementary School.... 63
Wilcox Elementary School. 68
North Ridgeville Middle School. 73
North Ridgeville Senior High. 81

PART IV: FINANCIAL RESOURCES. 86

PART V: RECOMMENDATIONS. 93

INTRODUCTION

In January of 1976, the North Ridgeville City School District contracted the services of the Faculty of Educational Administration, College of Education, The Ohio State University to conduct a comprehensive study of existing school facilities. This report is a culmination of the study team's efforts to: 1) determine the nature of the existing and desired educational program in the North Ridgeville School District and the school plant facilities that will be needed to house such a program, 2) determine the number of children the school district may expect to house in the next five years, 3) determine the adequacy of existing facilities to house anticipated enrollments and the desired program, and 4) determine the funds available to institute school plant improvements.

Analysis of the data collected in response to these four areas of investigation is requisite to determining the quality, quantity and desirable location of school buildings. The study team's recommendations follow directly from just such an analysis. This does not preclude the possibility that the North Ridgeville District staff may find it necessary to modify certain aspects of these recommendations. Changes in any of the factors evaluated and discussed in this study could affect the implementation process. However, any adjustments should be made as part of a total plan with due consideration given to their effects on other recommendations of this survey report.

An extensive study of this nature requires cooperation and a great amount of effort on the part of many individuals. The survey team extends its appreciation to Superintendent Beitler, members of his central administrative staff, and all employees of the district who gave their assistance to this study. Without this cooperation and assistance, this project could not have been completed.

PART I: THE SETTING

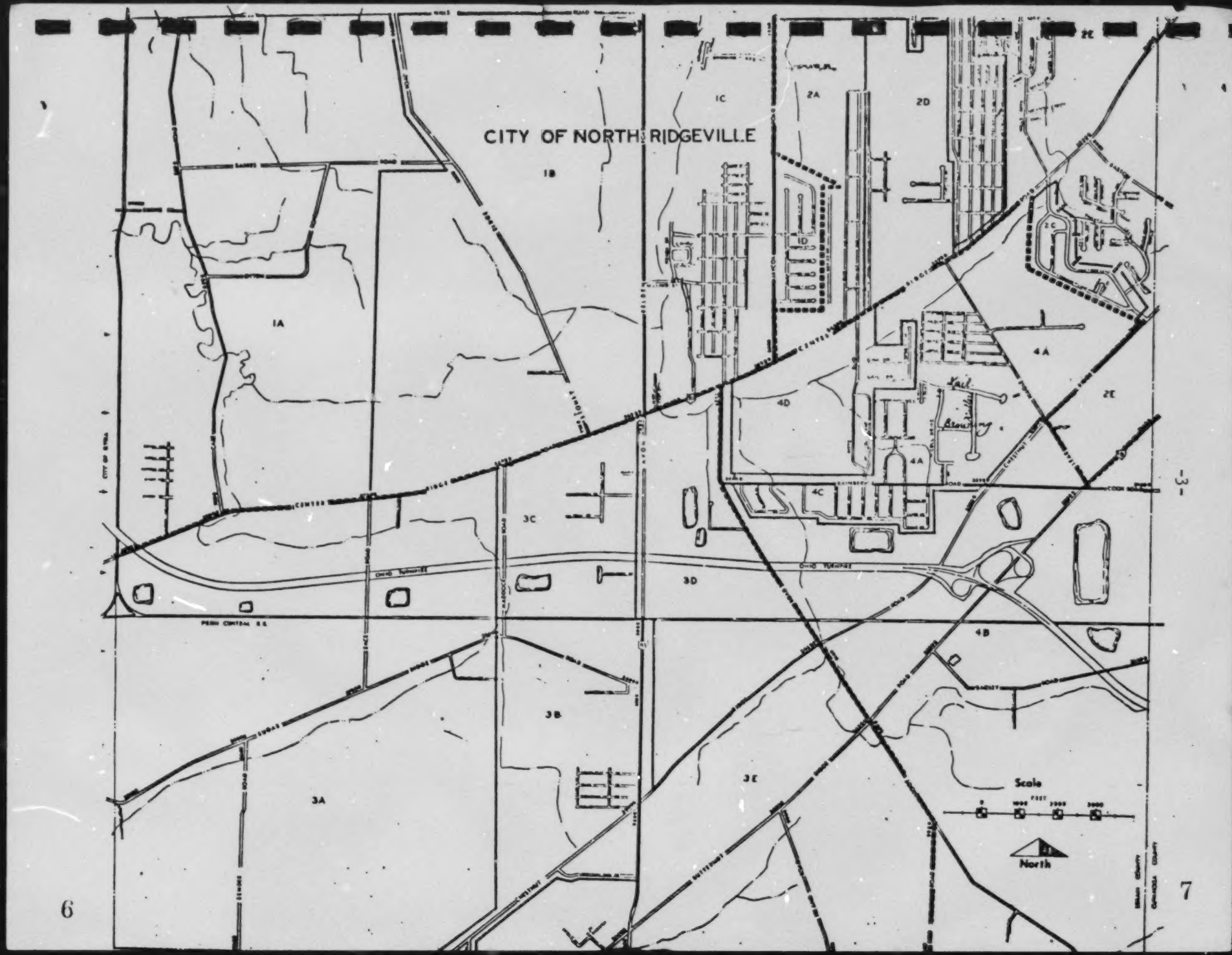
The city of North Ridgeville encompasses an area of approximately 25 square miles in the Northeast section of Lorain County about 25 miles west of Cleveland. The city's school district serves the entire area bounded by Elyria to the west, Avon to the north, and Cuyahoga County to the east.

The primarily rural area may easily be described as consisting of quadrants divided by SR 83 as the North-South axis and the Ohio Turnpike as the East-West axis. The Turnpike exchange is located in the mid-eastern section of the city and provides easy access to Cleveland's southern suburbs. Center Ridge Road (US 20) provides accessibility to Cleveland's Western suburbs and central city. The Penn Central Railroad also traverses the city from East to West and has somewhat inhibited residential development in the Southern quadrants.

Financial resources are limited to residential and commercial developments due to the lack of substantial industry. Commercial enterprises consist largely of small entrepreneurial organizations with a number of wholesale greenhouses which market their produce in Cleveland.

The Northeast quadrant is presently the most heavily populated section, providing residents with a semi-suburban environment. The populace of this quadrant consists primarily of middle-class, white-collar workers of Protestant and Catholic religious affiliations. The Mills Creek and Willow Park residential areas are largely upper middle-class with many of the male heads-of-households commuting daily to the Cleveland area.

The population of North Ridgeville has increased from 5,000 in 1960 to approximately 16,000 in 1975. The majority of this increase may be attributed to in-migration supplemented by a small, sporadic increase in


CITY OF NORTH RIDGEVILLE
1A
1B
1C
2A
2B
2C
2D
2E
3A
3B
3C
3D
3E
4A
4B
4C
4D
Scale
North

the number of live births for Lorain County. Construction of new homes continues on the average of 250 units per year providing adequate residential facilities to accommodate the increasing population. The majority of residences presently consists of single family dwellings; however, several apartments have recently been constructed and there are plans for further construction of multiple family units in the future.

The student population, nearly 5,000, is housed in three elementary schools (K-4), one middle-school (5-8), and one senior high school (9-12). A fourth elementary school is slated to open in the fall of 1976 at which time all fifth grade students will be housed in the elementary schools. All of the buildings, with the exception of Fields-Sweet Elementary School are located in the city's Northeast quadrant.

SATURATION ANALYSIS

The saturation analysis is the aspect of a comprehensive facility study which considers a district's potential for population growth. An essential component of the planning phase, this projection is based on data collected from three main sources:

- A series of spot maps showing the residence location of all pupils in the school district
- Information which shows the location of dwelling units at the present time within the district
- Information on the numbers of dwelling units under construction and a look at construction trends.

Although spot maps were not available, the superintendent's staff was able to provide the study team with information relative to the general location of transported students within each attendance area. Data regarding construction trends, zoning ordinances, and present and future concentrations of the residential population were supplied by the Office

of the Mayor, the Lorain County Regional Planning Commission, and representatives of the Diamond Real Estate Company.

North Ridgeville's growth pattern is atypical of the national trend which generally shows stable or declining populations. The proximity to Cleveland and the semi-suburban environment are most likely responsible for the high degree of in-migration presently occurring within the North Ridgeville area. This assumption is supported by the fact that present residential population is concentrated in the Northeast quadrant of the city. Approximately 90% of new home construction has taken place in this quadrant with the remaining 10% occurring in the Southeast sector.

An average of 250 new dwelling units per year have been built within the past decade and construction plans for 1976 are expected to approximate this figure. Multiple family dwellings are minimal with only 217 one and two bedroom units presently in existence. However, several apartment buildings are under construction and more are planned which should account for an additional 200 units in the Northeast quadrant. The majority of new dwellings are within the cost range which attracts families with upper elementary and lower secondary age children. The cost range of homes in the Mills Creek area falls in the upper income brackets indicative of families with children of upper secondary school age. The concentration of construction in the former category indicates a potential increase in school enrollments for grades five through nine. Increases may also be expected to occur at the lower elementary level, but the lack of pre-school census data makes it difficult to project the degree of increase or its impact on present facility utilization.

North Ridgeville can be described as a "bedroom" community due to its virtual lack of industry. Zoning ordinances have provided for

industrial growth along the Turnpike corridor with a heavy concentration zoned for the far Western portion of the city. The lack of sewage facilities is primarily responsible for its under development to date. However, plans for extension of sewer lines down to the Western boundary are likely to change this trend for the future. In addition, recent installation of water lines in the Northwest and Southeast quadrants provide the necessary requirements for growth to accelerate in these two areas. But, initial development in these sectors may be expected to focus on residential and light business due to the current trend of limited industrial growth patterns at the national level.

The study team suggests that the school system closely watch the above factors; namely, construction trends and industrial growth patterns. In addition, the district staff should develop and maintain a complete set of spot maps indicating the location of student residences by age/grade grouping, i. e., elementary, middle school, and high school. This information is vital to adequate planning of site acquisition and subsequent new school construction. It is further recommended that a complete and accurate pre-school census be initiated and conducted on an annual basis to provide a current and ongoing source of information regarding probable elementary school enrollments.

PART II: THE NEED

THE QUALITATIVE ASPECT OF NEED: THE EDUCATIONAL PROGRAM

General Characteristics

Educational facility planning is based on the premise that school buildings in a community should be viewed as educational tools. It is not likely that a quality educational program can exist in buildings that do not provide the necessary facilities. The major purpose of school facilities, therefore, is to provide the fundamental educational environment for the overall educational program of the community.

Buildings, facilities and programs must operate together. In studying this relationship, the survey staff met with administrative personnel, teachers, principals and department heads, conducted an on-site inspection of buildings over a period of several days and conversed informally with members of the community and students at the various schools. The purpose of this intensive interaction was to delineate the essential features of existing programs and to determine any desirable modifications.

The vertical organization of the North Ridgeville City School District is presently K4-4-4. Beginning in September of 1976, this plan will be shifted to a K5-3-4 organizational pattern. Due to the constraints placed on the middle and senior high schools by facility construction and student population, the administration is receptive to the possibility of further organizational shifts discussed in the recommendations section of this report.

School Size

The administrative staff is fully aware that the size of a school is an important consideration in evaluating the needs of the North Ridgeville

system. Schools can become too large under certain organizational patterns. Schools which are overly large may seriously hinder the humanizing aspects of the educational program by restricting open communication between students, teachers, and community members. In an attempt to partially alleviate this potential situation from occurring, the central administration and the Board of Education are currently planning a shift in attendance boundaries for the system's elementary schools. This action is predicated on the opening of Liberty this fall and will provide the framework for establishing the neighborhood school concept at the elementary level.

The Elementary School Program

The elementary school program is primarily organized on a self-contained classroom concept with the majority of academic activities occurring in basic classroom units under the direction of the classroom teacher. Elementary teachers are, for the most part, generalists in the major academic areas of reading, language arts, arithmetic, science, and social studies. This basic curriculum is supplemented by activities in art, music, and physical education. Although support spaces were initially provided for each of these areas, increasing enrollments have necessitated their modification for use as general classrooms and special education instructional spaces. Therefore, art and music activities with some exception, are conducted within the classroom unit.

Exceptions to the self-contained program, other than physical education, include limited instructional use of library facilities, remedial reading instruction, speech and hearing therapy, and limited group activities by grade level. This latter approach is more often employed at Wilcox than the other two elementary schools due to its modified

open-space construction.

The new Liberty School is expected to operate on the open-space concept with students grouped by ranges in age rather than the traditional age/grade approach. The kindergarten program, however, will continue to operate on the self-contained plan.

At present, implementation of curricular innovations are limited by the lack of available financial resources. But, the administration has been able to provide for pupil personnel services such as a learning disabilities program, special education, and guidance services.

The Middle School Program

The middle school program is essentially designed as a transitional phase between the academically structured, self-contained elementary program and the more departmentalized senior high program with a diversity of course electives. The North Ridgeville Middle School, which presently houses grades 5-6-7-8, attempts to employ this concept incrementally. Fifth grade pupils are exposed largely to the self-contained environment with a program nearly identical to that housed in the system's elementary schools. The notable exception to this arrangement is the removal of art and music from the basic classroom unit to separate instructional spaces supervised by teachers specializing in these supplementary services.

Sixth grade pupils are scheduled on a modified departmentalized plan. A team of four teachers, each with his/her own classroom unit and academic area of specialization, is responsible for approximately 130 pupils throughout the school day. These pupils are grouped into four homeroom units and attend classes within these groups spending about one hour per day with each teacher in the team. This arrangement not only provides a measure

of academic specialization but also allows teachers to coordinate activities within the team to provide curricular continuity of arithmetic, science, social studies, and English. Physical education, music, and art are scheduled with teachers outside the immediate team and in most cases involve combining two or more groups for the designated instructional period for each of these activities.

Seventh and eighth grade pupils are scheduled on a completely departmentalized program. The required academic courses, mathematics, English, science and history-geography, are supplemented by elective courses in art, home economics, typing, industrial arts, French and Spanish. Music and health-physical education are also a part of each pupil's program.

Support services are provided and coordinated through the pupil-personnel division of central administration. These services include: guidance, Title I reading, health, and special education with units for both the elementary and secondary components of North Ridgeville Middle School. Cafeteria and library facilities are present and utilized to the fullest extent possible. However, the library facility restricts regular use by teachers and students due to its limited size and construction. The administration is cognizant of this inadequacy and is presently planning to correct the facility's deficiencies as funds become available.

The Senior High School Program

The North Ridgeville staff is committed to the belief that a senior high school program should provide comprehensive curricular offerings designed to meet the needs and interests of students as they consider employment on leaving school or continuance of formal education. This philosophy serves as the foundation for the current program of curricular,

co-curricular, and extra-curricular offerings at North Ridgeville Senior High School. The major disciplines are in themselves diversified to provide a variety of offerings to meet individual interests and abilities. For example, courses in mathematics include: pre-algebra, algebra, general math, geometry, and trigonometry.

The district participates in a joint vocational school program with approximately 45 North Ridgeville pupils presently opting for this alternative. This number is expected to rise to about 100 to 125 pupils for the 1976-1977 school year and then remain relatively stable.

Overall District Conceptualization of Instruction

In general, the district feels that education involves more than assimilation of knowledge and development of skills. The instructional philosophy is value oriented, emphasizing the individual's responsibility to his family and his community. Hence, the program of instruction reflects the community's desire to develop self-disciplined youth through highly organized activities within specified behavioral limitations. Teachers' skills and degrees of expertise naturally influence the techniques employed within each subject area. However, the varieties of instructional approaches are maintained within the district's overall conceptual framework.

THE QUANTITATIVE ASPECT OF NEED: SCHOOL ENROLLMENTS AND OPERATING CAPACITIES

A. SCHOOL ENROLLMENTS

An analysis of school enrollments for the past eight years was necessary to establish a data base from which to make projections of future enrollments. This information, listed below by grades and grade groups for each academic year, is represented in Table 1.

Factors Affecting Enrollment Change

Numerous factors may be responsible for causing a shift in public school enrollment patterns. These sources of influence may be categorized as population factors which affect the number of school age children in the total population and educational factors which affect the number of children who are actually enrolled in the public schools.

Two major population factors are birth rates and migration patterns. Birth rates are affected by the number of females of child bearing age living within the district and their attitudes toward family size. National trends show a steady decline in birth rates during the past decade. While Lorain County did show a slight increase in live births during the three-year period of 1969 to 1971, the ten-year trend is indicative of the national decline (See Table 2). Therefore, the increasing population of North Ridgeville can be attributed to the in-migration factor.

Educational factors are reflected in the grade-to-grade survival rate patterns and include: non-public school enrollment, non-resident enrollment, retention of pupils, school district boundary line changes, first grade entrance age/date requirements, and secondary school holding

TABLE 1

Enrollments by Grades and Grade Groups for
Eight Years in the North Ridgeville School District - Grades 1-12

Grade or Group	*Enrollments 68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76
1	317	320	357	331	386	400	370	411
2	289	312	303	353	345	376	402	354
3	269	310	301	310	371	371	374	375
4	255	281	304	338	340	397	381	365
1-4	*1130*	*1223*	*1265*	*1332*	*1442*	*1544*	*1527*	*1505*
5	265	258	274	322	351	353	389	387
6	272	273	254	298	342	364	366	400
7	251	302	266	273	335	358	372	364
8	242	254	303	278	292	340	384	367
5-8	*1030*	*1087*	*1097*	*1171*	*1320*	*1415*	*1511*	*1518*
9	290	280	281	351	358	375	417	423
10	199	270	273	277	329	325	334	386
11	186	194	249	247	255	310	284	299
12	216	180	176	218	222	219	284	285
9-12	*891*	*924*	*979*	*1093*	*1164*	*1229*	*1319*	*1393*
**1-12	*3051*	*3234*	*3341*	*3596*	*3926*	*4188*	*4357*	*4416*

*Adjusted to include EMR, Learning Disabilities, and JVS
**Data Base excludes kindergarten enrollments

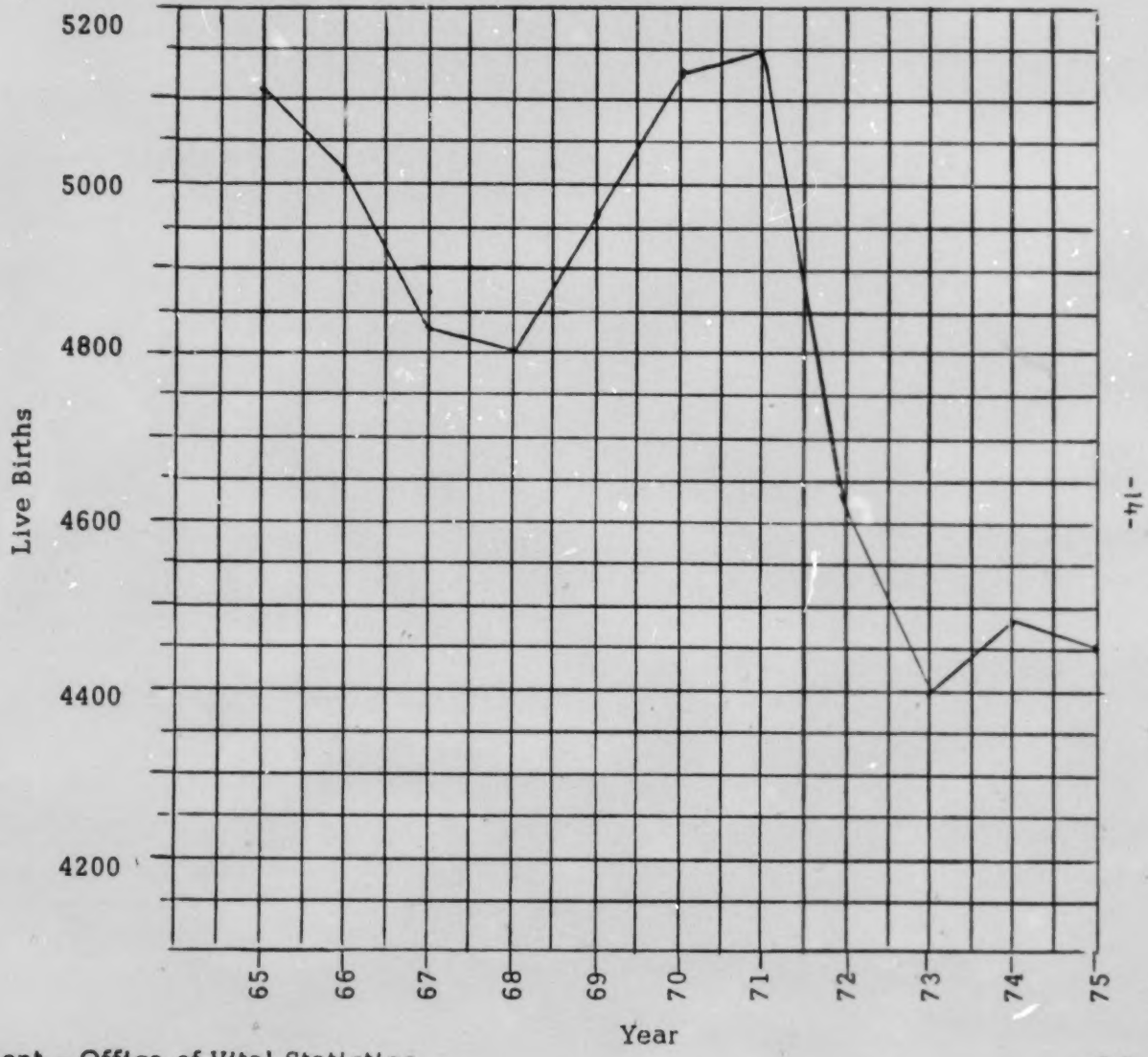
Source: North Ridgeville City School District Staff

TABLE 2

Birth Data, Lorain County

Year	Rate (Per 1000)	Live Births
1965	51.9	5118
1966	50.4	5037
1967	48.3	4825
1968	48.0	4803
1969	49.6	4960
1970	51.5	5146
1971	51.6	5156
1972	45.9	4586
1973	43.9	4394
1974	44.8	4477
1975*	44.6	4459

*Tentative Figure



Source: Ohio State Health Department - Office of Vital Statistics

power. Of these, the two which have had a major impact and are likely to continue to have an influence on North Ridgeville's public school enrollments are: non-public school enrollments and secondary school holding power.

St. Peter School, located on Center Ridge Road, draws a larger proportion of the city's population than either Lake Ridge Academy or the other local parochial school located outside the North Ridgeville district boundaries. Any change in St. Peter's ability to maintain its present enrollment, such as lack of diocesan funding or a shift in the present 1-8 organization, could easily impact elementary and secondary public school facilities (See Table 3).

Secondary school holding power primarily reflects the drop out rate, but may be influenced by out-migration and by joint vocational school (JVS) enrollment where these students are not identified in the system's student accounting procedures. Since less than 50 North Ridgeville students are currently attending JVS and these students are included in adjusted enrollment figures, the holding power is essentially indicative of the system's drop out rate. This latter statistic may be seen in the survival rate patterns displayed in Table 4. This does not preclude the possibility of some out-migration at the secondary level, but in view of the factors discussed in the saturation analysis section of this report, the figure may be considered as minimal.

Survival rates represent the number of students moving from one grade into the next grade level. They are determined by dividing one year's enrollment for a given grade by the enrollment for the preceding grade the previous year. For example, the survival rate for grades 1

TABLE 3

Enrollment Data for St. Peter

School Year	Enrollments by Grade								
	1	2	3	4	5	6	7	8	Total
1966-67	74	68	42	56	51	48	46	47	432
1967-68	57	67	65	44	51	49	44	44	421
1968-69	77	58	69	64	42	51	47	43	451
1969-70	73	80	59	68	65	42	47	40	474
1970-71	78	68	79	62	72	65	40	45	509
1971-72	78	73	65	65	57	59	56	38	491
1972-73	59	80	78	61	68	52	64	49	511
1973-74	83	66	80	80	70	63	55	56	553
1974-75	77	80	66	80	80	68	66	47	564
1975-76	80	77	80	66	80	74	68	63	588

Source: North Ridgeville City School District Staff

to 2 for 1975-1976 is calculated by dividing this year's second grade enrollment (354) by last year's first grade enrollment (370). The quotient when multiplied by 100 represents the percent of students who survived from first to second grade (95.7). Table 4 represents the survival rates for grades K through 12 for the past seven years and shows the high average, mean average, and low average rates for each grade grouping.

Future Enrollments

Two sets of enrollment projections have been made for the next five years. The first is a low projection which indicates the probable lower limit of enrollments for the indicated grade groups. The second is a high projection which indicates the probable upper limit of enrollments for each indicated grade group. The high projection range is represented in Table 5 and the low range is shown by year in Table 6 by grade level, grade groups and total.

The projections were made through a computer assisted cohort survival program based on data supplied by the district staff. Grade level enrollments for the past eight years were adjusted to include students in special education programs. This adjustment was determined by calculating the percent of the total student population represented by special program enrollments and distributing these students into each grade group accordingly. This form of adjustment was necessary due to the non-gradedness of special programs. JVS enrollments were divided between the eleventh and twelfth grades.

Kindergarten enrollments were excluded from the data in computing these projections. Since parents are not obliged to enroll their

TABLE 4

SURVIVAL RATES GRADES K-12

Year	*K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1969	100.0	98.4	107.3	104.5	101.2	103.0	111.0	101.2	115.7	93.1	97.5	96.8
1970	94.0	94.7	96.5	98.1	97.5	98.4	97.4	100.3	110.6	97.5	92.2	90.7
1971	93.4	98.9	102.3	112.3	105.9	108.8	107.5	104.5	115.8	98.6	90.5	87.6
1972	101.3	104.2	105.1	109.7	103.8	106.2	112.4	107.0	128.8	93.7	92.1	89.9
1973	93.7	97.4	107.5	107.0	103.8	103.7	104.7	101.5	128.4	90.8	94.2	85.9
1974	89.8	100.5	99.5	102.7	98.0	103.7	102.2	107.3	122.6	89.1	87.4	91.6
1975	92.2	95.7	93.3	97.6	101.6	102.8	99.5	98.7	110.2	92.6	89.5	100.4
						AVERAGES						
HIGH	98.4	100.5	105.5	108.4	104.5	105.6	108.9	106.3	126.6	95.7	94.0	94.9
MEAN	94.9	98.5	101.6	104.6	101.7	103.8	105.0	102.9	118.9	93.6	91.9	91.8
LOW	92.3	95.9	96.4	99.5	99.6	101.4	99.7	100.4	113.1	90.8	89.1	87.8

*Percent of survival for grades K to 1 are based on actual enrollments. All other survival rates are based on adjusted enrollments to include special education and JVS students.

-18-

TABLE 5

Grade Level Enrollment Projections
High Range 1976-77 to 1980-81

Group or Grade	76-77	77-78	78-79	79-80	80-81
1	411	412	366	351	358
2	413	413	414	368	353
3	374	436	436	437	389
4	406	405	472	472	473
5	379	422	420	490	490
1-5	*1,983*	*2,088*	*2,108*	*2,118*	*2,063*
6	409	400	445	444	518
1-6	*2,392*	*2,488*	*2,553*	*2,562*	*2,581*
7	436	445	436	485	483
8	382	458	468	458	509
6-8	*1,227*	*1,303*	*1,349*	*1,387*	*1,510*
7-8	*818*	*903*	*904*	*943*	*992*
9	455	474	567	579	567
7-9	*1,273*	*1,377*	*1,471*	*1,522*	*1,559*
10	405	435	454	543	555
11	363	381	409	426	510
12	284	344	361	388	405
9-12	*1,506*	*1,634*	*1,791*	*1,936*	*2,037*
10-12	*1,051*	*1,160*	*1,224*	*1,357*	*1,470*
1-12	*4,716*	*5,025*	*5,248*	*5,441*	*5,610*

TABLE 6

Grade Level Enrollment Projections
Low Range 1976-77 to 1980-81

Group or Grade	76-77	77-78	78-79	79-80	80-81
1	322	323	287	275	280
2	394	309	310	276	264
3	341	380	298	299	266
4	373	339	378	296	297
5	361	369	336	374	293
1-5	*1,791*	*1,720*	*1,609*	*1,520*	*1,400*
6	393	366	374	340	379
1-6	*2,184*	*2,086*	*1,983*	*1,860*	*1,779*
7	399	391	365	373	339
8	364	399	392	365	373
6-8	*1,156*	*1,156*	*1,131*	*1,078*	*1,091*
7-8	*763*	*790*	*757*	*738*	*712*
9	412	409	448	439	410
7-9	*1,175*	*1,199*	*1,205*	*1,177*	*1,122*
10	384	374	371	406	399
11	344	342	333	331	362
12	262	302	300	292	290
9-12	*1,402*	*1,427*	*1,452*	*1,468*	*1,461*
10-12	*990*	*1,018*	*1,004*	*1,029*	*1,051*
1-12	*4,349*	*4,303*	*4,192*	*4,066*	*3,952*

children in a kindergarten program, inclusion of this data would tend to skew the projections inhibiting their predictive capabilities. However, examination of the K to 1 survival rates in Table 4 may be used by the district to estimate the number of first grade pupils for the 1976-1977 school year.

Enrollment projections are made to facilitate the planning of school plants and other needs in the future. Two sets of enrollment projections are presented for two basic reasons. First, it is extremely difficult to develop a single enrollment projection which will have a high degree of accuracy. Consequently, two limits are presented in an effort to describe the probable range within which enrollments are likely to fall during the time period covered by the projections. The second reason is that developing a range of probable enrollments alerts the district staff to the need of developing a flexible school housing plan. That is, the plan developed by the staff must have sufficient flexibility to provide needed school housing at either the low or high enrollment projections or at various points between these probable limits.

Analysis of Trends

An analysis of enrollment patterns and trends indicates that the North Ridgeville system has experienced a high degree of in-migration over the past eight years. An analysis of enrollment figures during this time period shows the greatest increases to have taken place at the four through nine grade groupings with the largest "bulge" of students occurring at the sixth and ninth grade levels. The sixth grade "bulge" may be seen by comparing enrollment trends for grades 1-5 with

those for grades 1-6 (see graphs 2 and 3). The decline in enrollments from 1974-1975 to 1975-1976 in graph 3 is not present in graph 2, thus indicating that the stability in 1-6 enrollments results from a large number of sixth grade pupils.

When viewed in total (grades 1 - 12 combined) the enrollment data indicates a steady increase in student population with a moderate "leveling off" during the present year (see graph 1). In view of this data, the district's 1-12 enrollments for the next five years may be expected to fall in a range closer to the high projection than to the low projection.

Further evidence of an increasing enrollment may be seen in a comparison of grade 1 to grade 8 enrollments (see Table 7). The percentages in the right-hand column indicate that enrollments are continuing to increase, though these figures show the increase to be tapering off gradually. These percentages are considerably higher than the national average which is presently in the low to mid eighties.

In analyzing current available data, all indications point to a continued increase in school enrollments over the next five years. However, as mentioned previously, changes in any of the influencing factors could affect this increase. Consequently, careful attention must be paid to construction trends, industrial growth, and changes in birth rates. Establishing and maintaining a pre-school census will give the district staff valuable information indicative of these factors. In addition, changes will be reflected far enough in advance to provide ample time to modify the facility planning program.

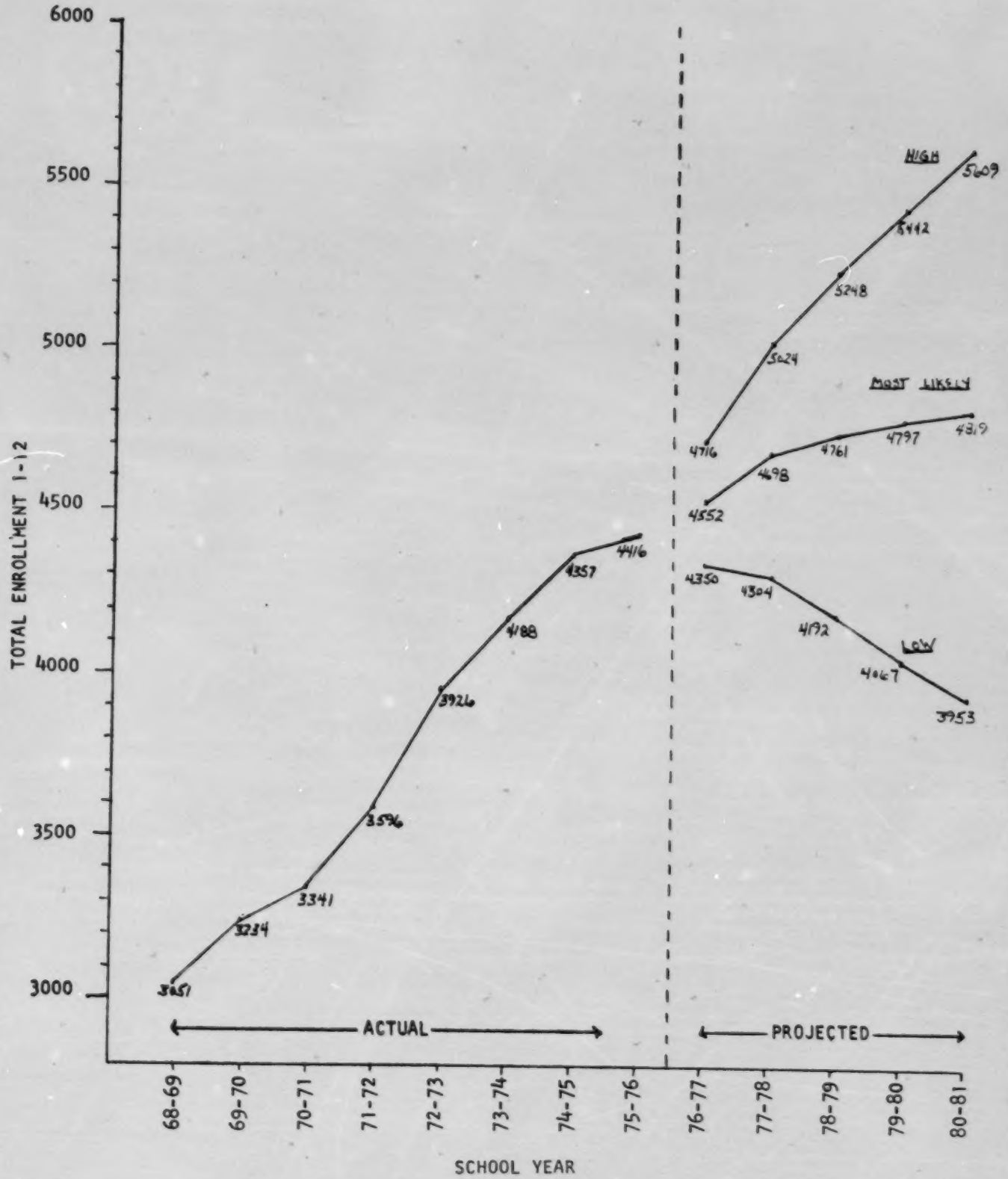
TABLE 7

Percentage of Grade 1 to Grade 8

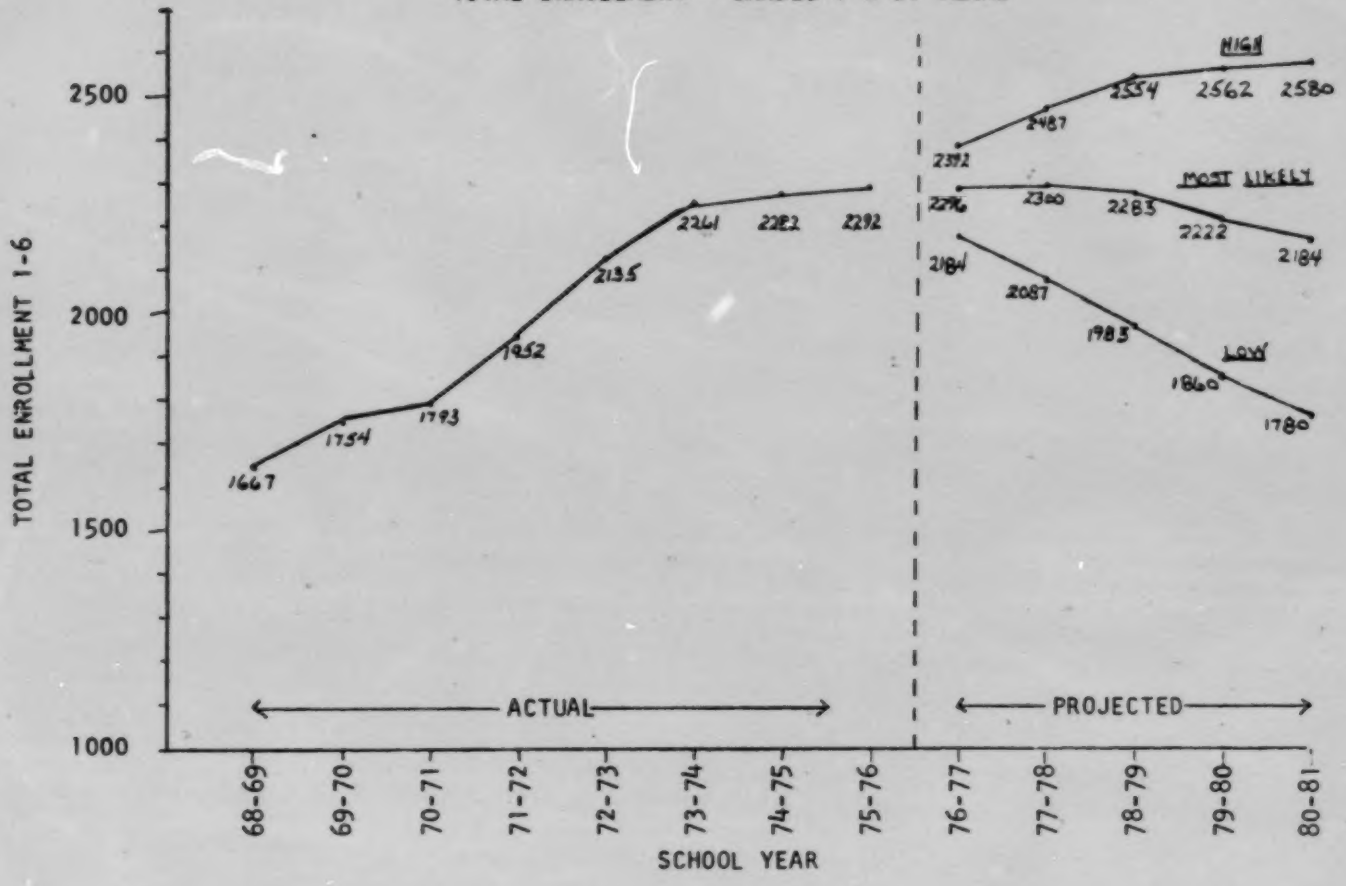
	Grade 1	Grade 8	Percentage
1968	317	242	131%
1969	320	254	126%
1970	357	303	118%
1971	331	278	119%
1972	386	292	132%
1973	400	340	118%
1974	370	384	96%
1975	411	367	112%

GRAPH 1

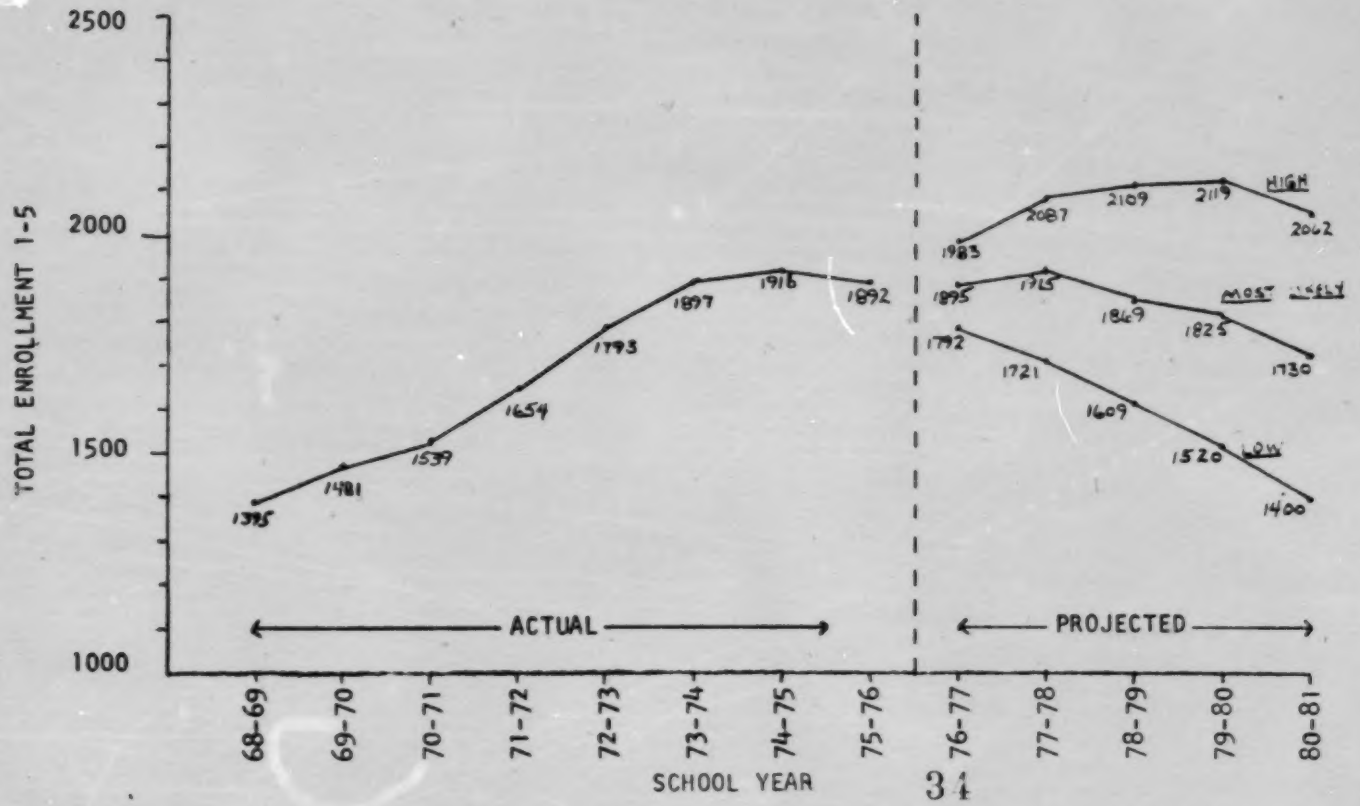
TOTAL ENROLLMENT - GRADES 1-12 BY YEARS



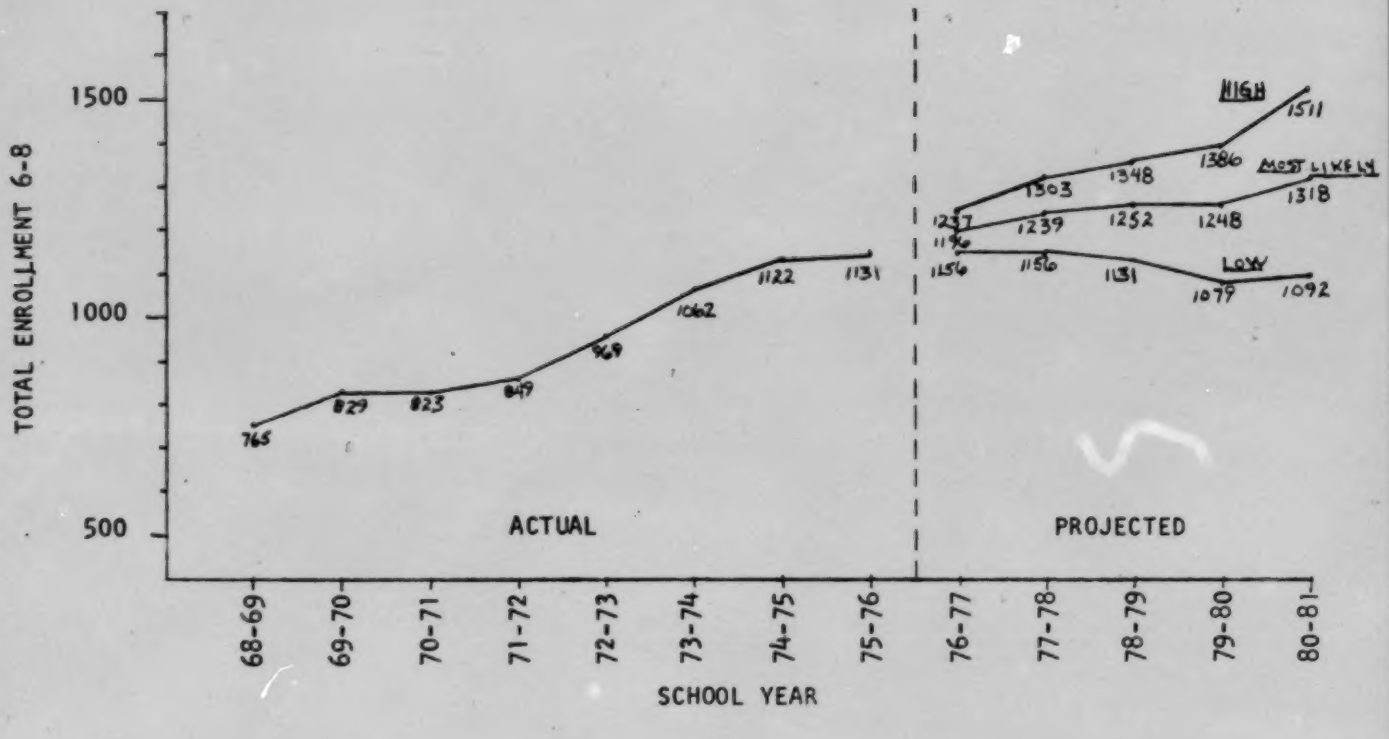
TOTAL ENROLLMENT - GRADES 1-6 BY YEARS



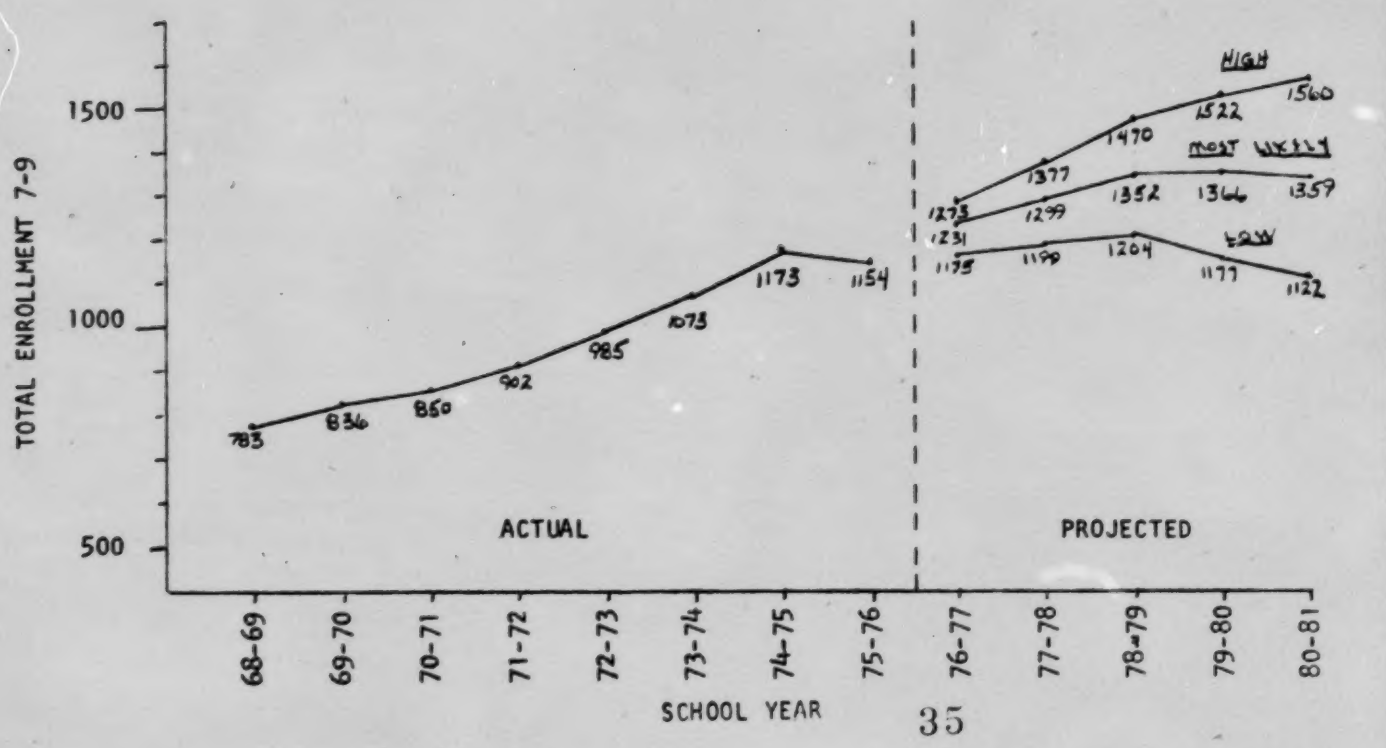
TOTAL ENROLLMENT - GRADES 1-5 BY YEARS



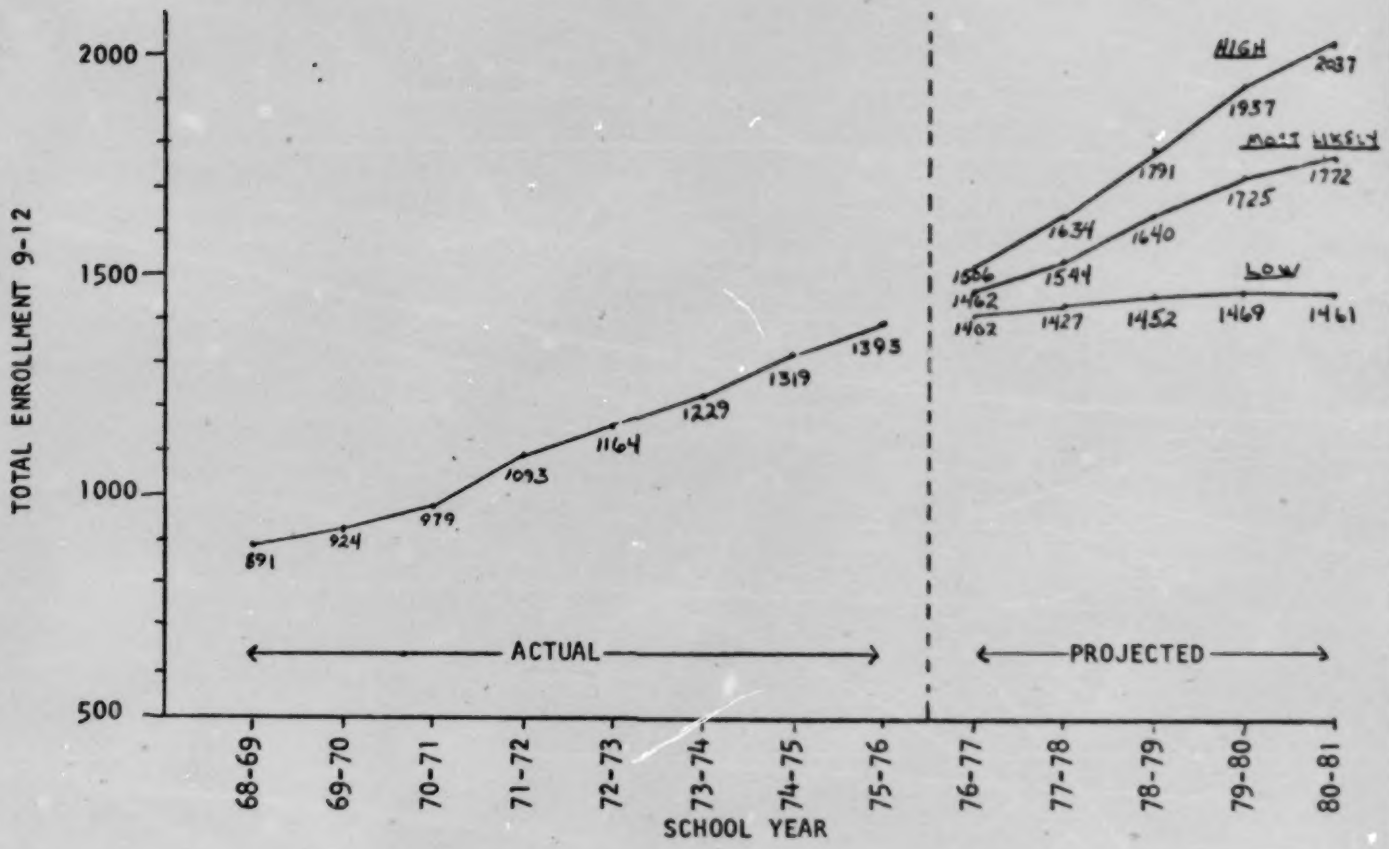
TOTAL ENROLLMENT - GRADES 6-8 BY YEARS



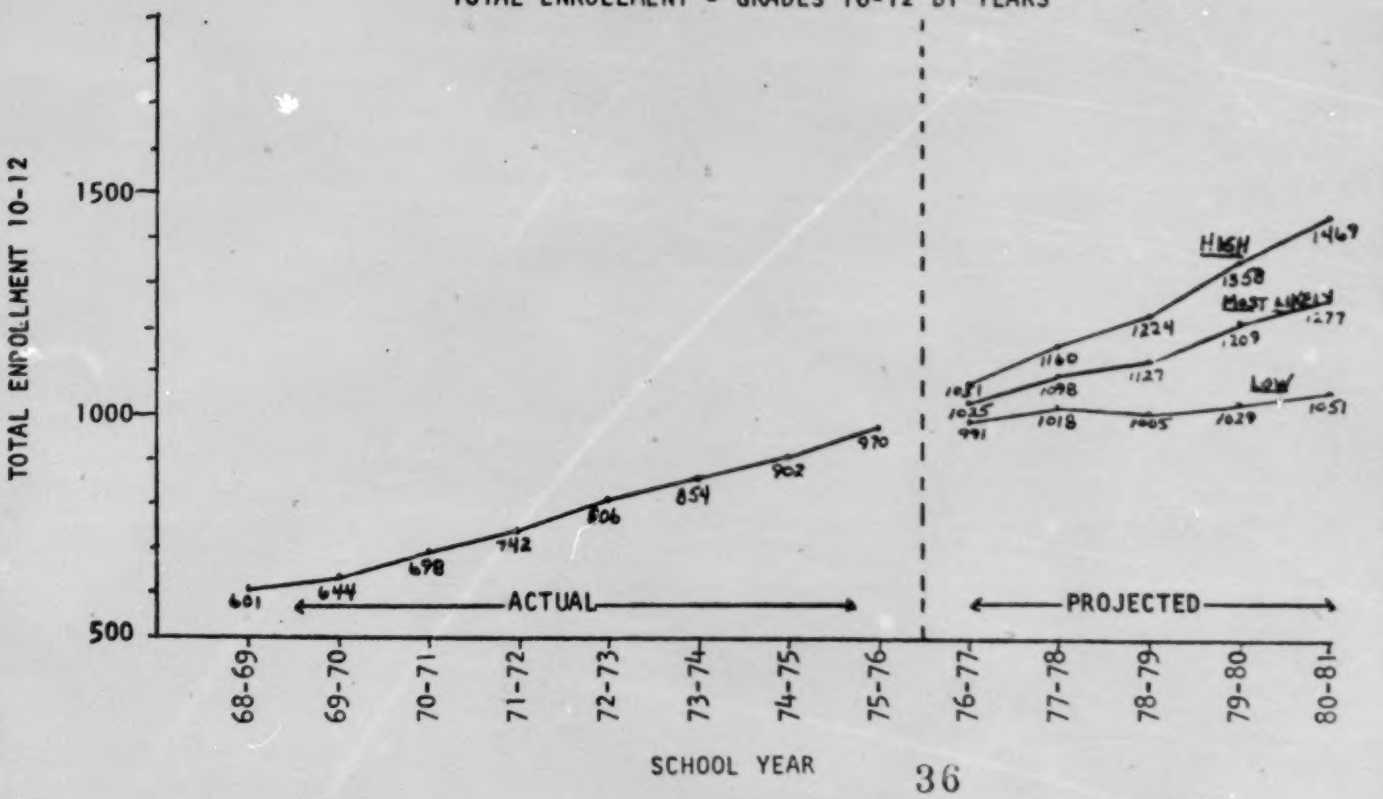
TOTAL ENROLLMENT - GRADES 7-9 BY YEARS



TOTAL ENROLLMENT - GRADES 9-12 BY YEARS



TOTAL ENROLLMENT - GRADES 10-12 BY YEARS



B. OPERATING CAPACITY OF THE NORTH RIDGEVILLE CITY SCHOOLS

In an effort to clearly define the processes used by the study team in determining the total operating capacity of the school within the North Ridgeville City School District, and to identify the standards and nationally recognized criteria which were employed, this section of the Comprehensive Facility Stud, is hereby submitted. Included are the results of the capacity study for each elementary and seconday school as well as explanations of the determination of uniform criteria on which the calculations for operating capacity were based.

ELEMENTARY SCHOOL FACILITIES

Operating Capacity

The operating capacity of an elementary school building is the maximum number of students that can occupy that building without functionally overcrowding it. In finding the greatest number of students that an elementary school building will accommodate, it is necessary to take into consideration those school district policies and district-wide programs that might restrict the number of students the building will functionally accommodate. For example, if the school district has a policy that no more than 30 students can be placed in an elementary classroom, the total operating capacity of an elementary school must not include more than 30 students in each classroom. Similarly, if the school district has a district-wide program policy that requires all elementary schools to set aside one classroom as a special remedial reading room, likewise one classroom in each elementary school must be eliminated as a regular classroom in figuring the total operating capacity. In fact, the study team, in determining the operating capacities of the North Ridgeville City Schools, separated any elementary

classroom that was being used for a special instructional program from those classrooms that were available as regular instructional classrooms but currently being used as special instructional classrooms. This was done to give the central administration an idea of how many students the schools would hold with all the special programs in operation as well as how many students their schools could accommodate if all special programs were eliminated and all classrooms in the district were used in regular instructional programs.

Policies and Standards

In examining the North Ridgeville School District policy on class size, in addition to nationally recognized standards, acceptable maximum and minimum average class sizes were determined for the study team to apply as follows:

Kindergarten Classrooms
minimum - 20 students
maximum - 30 students

Regular Elementary classrooms for grades one through six
minimum - 20 students
maximum - 35 students

Special Elementary classrooms that were originally designed as regular classrooms and could be converted back to regular instructional use
minimum - 20 students
maximum - 35 students

In determining how many square feet of space was acceptable to allow for each student in his/her day-to-day learning activities, the study team determined that the following nationally recognized criteria would apply to North Ridgeville elementary schools.

Kindergarten student
35 square feet of space per student

Grades one through six
30 square feet of space
per student

Combining the district policies and national standards on class size with the nationally recognized criteria for the number of square feet per student permitted the study team to zero in on ranges of classroom sizes for use in determining whether or not each classroom space could be considered as an acceptable classroom instructional area. These ranges are as follows:

Kindergarten size range in
square feet of space
700 sq. ft. - 1050 sq. ft.

Grades one through six range in
square feet of space
600 sq. ft. - 1050 sq. ft.

In applying the above size ranges, a classroom was considered as acceptable as a classroom if it contained no less than 700 square feet of space for kindergarten instruction and no less than 600 square feet of space for instruction in grades one through six. Since the district policy dictated the maximum number of students that was allowable in each classroom and nationally recognized criteria dictated the amount of square feet per student, any space over 1050 square feet was calculated at the maximum level of 1050 square feet to comply with these criteria.

Kindergarten Calculation

North Ridgeville City Schools operates half-day kindergarten programs. The operating capacity of the kindergarten classrooms in each elementary school was determined by measuring the total square feet in all the kindergarten classrooms and dividing the total square footage in each school by 35 square feet per student. The resulting quotient

was multiplied by 2 to account for both half-day sessions. For example, the operating capacity of the kindergarten classrooms in a school with two half-day kindergarten classrooms would be determined as follows if the classrooms were measured to be 1050 square feet each:

Half-Day Kindergarten

- 1050 square feet was multiplied by 2 and then was divided by 35 square feet per student for an operating capacity of 60 students per half-day session; or, a total operating capacity of 120 students for both classrooms.

Grades One Through Six Calculation

Operating capacities for classroom space used as regular classrooms, special classrooms, and those that were vacant, were determined in the same manner. (The square footage in each classroom was measured and total square feet in all the classrooms of each type was calculated, that is, regular, special, or vacant.) The total was then divided by 30 square feet per student and the resulting quotient was determined to be the operating capacity, or actual or potential. For example, the operating capacity for a school operating 10 regular classrooms, 2 language development classrooms, and one vacant classroom, each containing 850 square feet of space, was calculated as follows:

- The 850 square feet for each of ten regular classrooms was multiplied by ten, for a total of 8500 square feet.
- The 850 square feet for the one vacant classroom was added to the 8500 square feet for the ten regular classrooms in use for a total of 9350 square feet.

- The total of 9350 square feet was then divided by 30 square feet per student for an operating capacity of 312 students in the regular and vacant classrooms.

- The 850 square feet for the two special language development classrooms was multiplied by 2 for a total of 1700 square feet and divided by 30 square feet per student for an operating capacity of 57 students in the special language development classrooms.

Potential Operating Capacity

The total potential operating capacity in the sample referred to above was determined to be the sum of:

- The kindergarten operating capacity of 120 students, plus

- The grades one through six regular and vacant classroom operating capacity of 312 students, plus

- The special classroom operating capacity of 57 students, assuming that these so designated rooms could be converted back to regular grades one through six classrooms in the future

- Resulting in a total potential operating capacity of 498 students.

In three of the elementary schools in North Ridgeville, the operating capacities were calculated as outlined above. Liberty Elementary School was an exception. It is anticipated that Liberty Elementary School will operate open-space instructional programs, making it difficult at this time to make a distinction between instructional space that will be used for regular classrooms and instructional space that will be designated for special classrooms. The study team considered

all such areas, where the specific use was not yet determined as regular instructional space for the purpose of this report. Also, the study team made the assumption that no more than two instructional areas would be used for kindergarten classes and these are reported as such.

SECONDARY SCHOOL FACILITIES

As with an elementary school, the operating capacity of a secondary school building is the maximum number of students that can occupy that building without functionally overcrowding it. In finding the greatest number of students that a secondary school building will accommodate it is necessary to take into consideration those school district policies and district-wide programs that might restrict the number of students the building will accommodate. For example, if the school district under study has a policy that no more than an average of 28 students can be placed in an academic classroom, the total operating capacity of a secondary school must not include more than 28 students per each academic classroom. If another policy limits the number of students per non-academic classroom to the number of student stations in each room, the total operating capacity must not include more students than each non-academic classroom provides stations for.

As an example of a program limitation, a school district might require that each secondary school provided industrial arts education within its instructional program. If it can be assumed that each industrial arts classroom has only 24 student stations, the industrial arts classroom may limit the total operating capacity of the school. For example, a school may have enough academic classrooms to hold 1000 students; but, if it only has enough industrial arts classrooms

to accommodate the number of students who would normally enroll in industrial arts with a total enrollment of 500 students, the school is limited to a total capacity of 500 students. Any more than 500 students would overcrowd the industrial arts program. In general, the operating capacity is limited by the operating capacity of the subject area that will hold the least number of students. Strict application of such limitations to a secondary school's total operating capacity are examined within the study team's professional judgment.

In determining the operating capacity of each subject area in each of the secondary schools in North Ridgeville, the study team applied the following nationally recognized formula

$$BC = \frac{TS \times DS \times T \times E}{PP}$$

in which

- BC is the maximum number of students that a secondary school can house in a particular subject area.
- TS is the total number of classrooms in a given subject area.
- DS is the desirable average class size in a particular subject area. This may be determined by the district-wide policy, as may be the case for academic classrooms, or, by the number of student stations as may be the case for specialized classrooms like those used for industrial arts. In lieu of a district-wide class-size policy in North Ridgeville, the recently legislated state class-size of 27 students was used by the study team as acceptable for the secondary schools of North Ridgeville.
- T is for the total number of periods per week in the school's master schedule of classes, excluding periods set aside for lunch.
- E is the average total enrollment of a secondary school for a given number of years; five years of data was used in the case of North Ridgeville.

and

- PP is the product of the number of students enrolled in a particular subject area times the adjusted number of periods per week that students attend class in that subject area.

The study team used the above formula to calculate the operating capacity of each subject in each secondary school schedule. Examination of the formula will show that the operating capacity of a particular subject area depends on several factors, the number of classrooms available in the particular subject area, the desirable average class size for that particular subject area, the number of periods in a school day, the school's average total enrollment, the number of students who enroll in that subject area, and the number of periods per week that are required for that subject area. A change in any one of these factors will affect the operating capacity of a particular subject area. Since the total operating capacity of each secondary school is determined by calculating the operating capacity in each of its subject areas; it is highly improbable that even two architecturally identical secondary schools will have the same total operating capacity.

The above formula represents the precision with which operating capacity may be determined, but education is not such a precise science. The formula must be combined with the professional judgment of educators in order to determine an operating capacity that truly reflects a school's program, policies, and facilities. By itself, the formula could provide a distorted operating capacity. For example, professional judgment is required to make a distinction between the desirable average class size for an industrial arts classroom in a junior high school as opposed to a similar classroom in a high school. Such a distinction can only be made by considering the difference between a junior high school industrial arts program and a high school industrial arts program. The type of

curricular programs in a particular subject area can sometimes affect the operating capacity of that subject if it limits the number of students who can participate more than another curricular program would. As a final example, the science facilities of a high school with a college prep emphasis would result in a lower operating capacity in science than the identical facilities of a high school with a vocational emphasis.

In reporting the secondary school operating capacities, each factor of the capacity formula is listed for each subject area as well as the final operating capacity of each subject area. The lowest operating capacity among all the subject areas that, in the professional judgment of the study team, is representative of the actual operating capacity of the school facility, is the one reported as the operating capacity of the facility. For example, the lowest operating capacity figure for North Ridgeville High School is the Driver's Education capacity figure of 909 students. This capacity figure derived from Driver Education data was judged by the study team as not representative of the actual operating capacity of the high school; instead, the next highest figure was examined.

The Classroom Capacity Index has also been included in the table because it can be extremely helpful in remodeling a school facility or in building a new facility. The Classroom Capacity Index indicates that one classroom is needed for the designated number of students in a particular subject area within the existing instructional program. For example, the following tables indicate that, within the existing high school program, one academic classroom is needed for every 73 students enrolled; whereas, within the existing middle school

program, one academic classroom is needed for every 60 students enrolled in grades seven and eight. Likewise, in the high school, one business education room is needed for every 453 students enrolled; whereas, in grades seven and eight in the middle school only one business education room is needed for every 829 students enrolled.

In determining the Classroom Capacity Index for each subject area the operating capacity formula is used excluding TS, or the total number of classrooms, from the computations. Or, it can be computed by dividing the operating capacity in each subject area by the total number of classrooms in each respective subject area.

The final column in the secondary school operating capacity tables indicates the number of additional classrooms that would be needed in each subject area in order to increase the total operating capacity of the North Ridgeville Middle School to accommodate an enrollment of 1000 students in the secondary school facilities. This column is included as a guiding factor for the administration in the event that organizational changes become desirable in the near future.

Also reported with the instructional operating capacities of the secondary school facilities are operating capacities for each library and cafeteria area. The designated capacity formula was used to calculate the capacities of these special areas but, it was necessary to redefine each factor in the formula in order to make the formula applicable to each special area. The adjustments made in the definitions of each factor were as follows:

$$BC = \frac{TS \times DS \times T \times E}{PP}$$

in which

- BC is the maximum number of students that a library or cafeteria area can accommodate within the existing program schedule.
- TS is the total number of library or cafeteria areas available to each student.
- DS is the desirable average number of students who can be housed in the library or cafeteria areas at any one time based on the following national standards for square feet of space per student.

  library - 30 square feet of space per student

  cafeteria - 12 square feet of space per student

- The total number of square feet in each special area was divided by the above standards to determine the desirable average number of students per area.
- T is the total number of periods per week in the school's master schedule in which the library or cafeteria is available for its designated use by students.
- E is the average total enrollment of the secondary school facility for the past five years. This figure for the Middle School is the average total enrollment for the past five years in grades five through eight.

and

- PP is the product of the average total enrollment and the number of school days per week (9). The assumption was made that both the library and the cafeteria are available for use by each student at least once each day.

OPERATING CAPACITY RESULTS

Middle School

The North Ridgeville Middle School presently contains grades five through eight with very little overlap between the general elementary program in grades five and six, and the general secondary

program in grades seven and eight. Therefore, the operating capacity of those instructional areas being used as elementary classrooms was calculated separately from those instructional areas being used as secondary classrooms. The operating capacity of the elementary classrooms was calculated according to the criteria previously described in the subsection "Elementary School Facilities", and the operating capacity of the secondary classrooms was calculated using the capacity formula described in this section, "Secondary School Facilities." Each operating capacity has been reported separately, and the total operating capacity for the North Ridgeville Middle School is listed as the sum of the two separate operating capacities.

The elementary facilities of the North Ridgeville Middle School reflect an existing operating capacity of 605 students and a potential operating capacity of 696 students if the three special instructional areas were to be converted to regular classroom use in addition to the 24 existing regular classrooms. The secondary school facilities reflect a total operating capacity of 541 students within the existing secondary instructional program. The academic instructional area is vital and is, in this case, limiting the total operating capacity under the existing program and organizational constraints. Included in Table 8 is the number of additional classrooms that would be needed to increase the operating capacity to 1000 students.

The total operating capacity of the North Ridgeville Middle School has been calculated as the sum of the operating capacity of the elementary facilities (605) plus the operating capacity of the secondary facilities (541). This resulting total operating capacity is 1146 students.

The operating capacity of the Middle School library and cafeteria areas were calculated separately using the capacity formula and the total grades five through eight enrollment. Also, for both the library and cafeteria facilities, the calculations were based on the assumption that each of these special facilities are available for each student to use at least one period per day within the school schedule. As a result the operating capacity of the library is 456 students, for the designated 40 - period school week, and the total operating capacity of the two cafeteria areas for the scheduled four lunch period day is 1820 students. Included in Table 8 is the number of additional areas of a size equivalent to each present special facility to increase the operating capacity to 1000 students.

Senior High School Facility

The total operating capacity of the North Ridgeville High School is presently 1163 students as reflected by the instructional program, and is limited by the constraints of the science facilities. Table 9 includes a column that indicates the number of additional classrooms that would be needed to increase the operating capacity to the 1489 students that the academic classroom facilities will accommodate within the existing instructional program.

Also included in Table 9 are the operating capacities for the library and the cafeteria, plus, the number of additional areas of a size equivalent to the existing facilities that would be needed to increase the operating capacity of each to 1489 students. As with the Middle School, the operating capacities of the library and

TABLE 8

NORTH RIDGEVILLE MIDDLE SCHOOL OPERATING CAPACITIES

Elementary Facilities - Grades Five and Six

Number of Classrooms and Operating Capacities					
Regular Instruction		Special Instruction		Potential Operating Capacity	
Number of Classrooms	Operating Capacity	Number of Classrooms	Operating Capacity	Number of Classrooms (Regular plus Specials)	Total Potential Operating Capacity
24	605	3	91	27	696

Secondary Facilities - Grades Seven and Eight

Subject Area	Number of Classrooms (TS)	Desirable Average Class Size (DS)	Effective Periods Per Week (T)	Average Total Enrollment (E) (7-8)	Adjusted Pupil Periods (PP)	Operating Capacity (BC)	Classroom Capacity Index (BC/TS)	Number of Additional Classrooms needed for an Operating Capacity of 1000/1500 students
Academic	9	27	40	660	11,855	541*	60	8/16
Science	4	27	40	660	3,565	800	200	1/4
Business	1	27	40	660	860	829	829	1/1
Industrial Arts	4	16	40	660	1,370	1,233	308	-/1
Home Economics	2	27	40	660	1,520	938	469	1/2
Art	2	27	40	660	1,700	839	419	1/2
Health-P.E.	3	27	40	660	1,825	1,172	391	-/1
Music	3	70	40	660	2,085	2,659	886	-/-
Special Educ.	1	18	40	660	835	569	569	1/2

TABLE 8 (Cont.)

NORTH RIDGEVILLE MIDDLE SCHOOL OPERATING CAPACITIES

Special Facilities - Library and Cafeteria

Special Area	Number of areas available to each student (TS)	Desirable average class-size (DS)	Effective Periods Per Week (T)	Average Total Enrollment (5-8), (5 yrs.) (E)	Adjusted Pupil Periods (one Periods per day, per student) (PP)	Operating Capacity (BC)	Number of Additional areas of a size equivalent to present facility that are needed for a capacity of 1000/1500 students.
Library	1	57	40	1,359	6,795	456	1.2/2.3
Cafeteria	1	455 (170 plus 285)	20	1,359	6,795	1,820	-/-

-42-

TABLE 9

NORTH RIDGEVILLE HIGH SCHOOL OPERATING CAPACITIES

Instructional Facilities

Subject Area	Number of Classrooms (TS)	Desirable Average Class Size (DS)	Effective Periods Per Week (T)	Average Total Enrollment (5 yrs.) (E)	Adjusted Pupil Periods (PP)	Operating Capacity (BC)	Classroom Capacity Index (BS/TS)	Number of Additional Classrooms needed for an operating capacity of 1489 students
Academic	20.5	27	40	1,293	19,225	1,489	73	------
Science	4	27	40	1,293	4,804	1,163*	291	2
Art	2	27	40	1,293	2,199	1,270	635	1
Music	2	60	40	1,293	1,280	4,849	2,424	------
Business	5	27	40	1,293	3,085	2,263	453	+1 (excess)
Industiral Arts	4	20	40	1,293	1,760	2,351	588	+1 (excess)
Physical Ed	3	27	40	1,293	1,980	2,116	705	------
Home Economics	3	27	40	1,293	1,553	2,698	899	+1 (excess)
Drivers Ed	0.5	16	40	1,293	455	909	1,819	------

-43-

Special Facilities - Library and Cafeteria

Special Area	Number of Areas available to each student (TS)	Desirable Average Class-Size (DS)	Effective Periods Per Week (T)	Average Total Enrollment (5 yrs)	Adjusted Pupil Periods (one period per day, per student (PP)	Operating Capacity (BC)	Number of Additional areas of a size equivalent to present facility that are needed for a capacity of 1,489 students
Library	1	60	45	1,293	6,465	540	1.76
Cafeteria	1	240	20	1,293	6,465	960	.55

TABLE 10

NORTH RIDGEVILLE ELEMENTARY SCHOOL OPERATING CAPACITIES - GRADES K THROUGH 4*

Number of Classrooms and Operating Capacities										
	Kindergarten		Grades 1-4		Total Operating Capacity Grades K-4		Special Classrooms		Potential Operating Capacity	
School	Number of Classrooms	Operating Capacity	Number of Classrooms	Operating Capacity	Total Number of Classrooms	Total Operating Capacity	Number of Classrooms	Operating Capacity	Number of Classrooms (K-4 plus special)	Potential Operating Capacity
Lear North	2	132	13	375	15	507	-	-	15	507
1976-77**	0	0	15	452	15	452	-	-	15	452
Wilcox	4	228	27	900	31	1,128	2	67	33	1,195
Fields-Sweet	2	94	11	349	13	443	3	79	16	522
Liberty	2	120	21	700	23	820	4	114	27	934

* Will be grades K through 5 as of September, 1976.
** Kindergarten to be removed from this facility beginning September, 1976.

the cafeteria are based on the assumption that each is available to each student at least one period per day. The resulting operating capacity of the library is 540 students indicating that library space 1.76 times as large would be needed in addition to the present library facilities for an enrollment of 1489 students. The cafeteria has an operating capacity of 720 students within the present schedule and, increasing the capacity to 1489 students would require a facility in addition to the cafeteria 1.55 times as large.

Recapitulation

The planning of present and future facility utilization and the need for additional facilities is based primarily on the comparison of potential operating capacities to projected enrollments. In other words, the quantitative aspect of need is the decisive factor in maximizing the qualitative aspect, namely the educational program. To assist the North Ridgeville staff in evaluating the study team's recommendations, Table II has been prepared as a summary description and comparison of the two quantitative needs elements. Explication of the data contained in this table has been presented within the body of this section of the total report.

TABLE II

FIVE YEAR PROJECTED ENROLLMENTS COMPARED TO FACILITY OPERATING CAPACITIES

ELEMENTARY FACILITIES (Includes Lear North, Wilcox, Fields-Sweet, and Liberty)

Potential Operating Capacity	Year	Projected Enrollments by Grade Groups 1 - 5 High	1 - 5 Low	1 - 6 High	1 - 6 Low
3,103	1976-77	1,983	1,791	2,392	2,184
	1977-78	2,088	1,720	2,488	2,086
	1978-79	2,108	1,609	2,553	1,983
	1979-80	2,118	1,520	2,562	1,860
	1980-81	2,063	1,400	2,581	1,779

MIDDLE SCHOOL FACILITY

Without Modification (Refer	With Modification to Table 8)	Year	6 - 8 High	6 - 8 Low	7 - 8 High	7 - 8 Low	7 - 9 High	7 - 9 Low
Partial Facility Utilization for Elementary, Grade 6 696	Total Facility Utilization for Secondary, Grades 7 - 9 1,000	1976-77	1,227	1,156	818	763	1,273	1,175
		1977-78	1,303	1,156	903	790	1,377	1,199
		1978-79	1,349	1,131	904	757	1,471	1,205
Partial Facility Utilization for Secondary, Grades 7 - 8 541		1979-80	1,387	1,078	943	738	1,522	1,177
		1980-81	1,510	1,091	992	712	1,559	1,122

-46-

TABLE II (Cont.)

SENIOR HIGH FACILITY					
Potential Operating Capacity		Projected Enrollments by Grade Groups			
			9 - 12		10 - 12
Without Modification (Refer to | With Modification Table 9)	Year	High	Low	High	Low
1,163	1,489	1976-77	1,506	1,402	1,051	990
		1977-78	1,634	1,427	1,160	1,018
		1978-79	1,791	1,452	1,224	1,004
		1979-80	1,936	1,468	1,357	1,029
		1980-81	2,037	1,461	1,470	1,051

FACILITY EVALUATION

PART III: FACILITY EVALUATION
EXISTING SCHOOL PLANT

An effective analysis of school plant needs takes into consideration the utilization of present school buildings and possible future uses of these buildings. There are many factors which determine the effectiveness with which school buildings can be used. The quality of the existing structures and the health and safety features of the buildings are important factors. It is of primary importance to consider how well the existing facilities can accommodate the desired projected educational and service programs of the district. Consideration must also be given to the extent of any remodeling or revamping that may be necessary to make the structures functional. Costs related to potential changes must also be taken into account. Location of the present buildings is a factor which is important in determining their future use.

Included in this evaluation section for each building will be descriptive data concerning the building and its program, facility evaluation, the evaluation profile, and a floor plan of the building. Since the study team's recommendations are based on a composite of the individual building evaluations, they will be discussed at length in the next section of this report.

In evaluating the facilities of the North Ridgeville School District, the study team made use of a facilities evaluation guide developed by Jack L. Landes and Merle R. Sumption. The guide presents evaluation criteria on ten dimensions. On each dimension, a building may receive a score from 0 to 100. From these scores, as determined by the study team, a profile has been constructed for each building. That profile is included in the following evaluation data. It should be noted that analyses of the

profiles can provide a relative comparison of buildings within the district and an absolute evaluation of a given building. The latter evaluation can be determined by viewing scores below 35 as indicating consideration of razing the structure and scores between 35 and 70 as indicating areas of concern for building feasibility.

To better understand the profile, the following capsule definitions of the evaluation dimensions are given:

FUNCTIONAL CHARACTERISTICS OF THE SCHOOL PLANT

I. Adequacy of the School Plant

This term refers to the relationship between the size of the site and the overall housing space on the one hand, and the number of students to be served on the other. Also listed under this aspect of functionality are internal features of the building that are more feasibly judged on a sufficiency basis than on a fitness basis.

II. Suitability of the School Plant

This characteristic includes those features, such as type of plant and the facilities available, which enable the school to satisfactorily house the particular educational program to be carried on. Of necessity, this aspect requires an analysis of the equipment available.

III. Safety of the School Plant

Safety is a function of those features of the school plant which make the building structurally sound and protect the students from hazards of traffic, fire, and accidents.

IV. Healthfulness of the School Plant

This term refers to the degree to which pupils are insured freedom from dirt and excessive noise, and provided with satisfactory facilities for lighting, heating, ventilation, and sanitation, and a plentiful and convenient supply of pure water. In general, the features of the building designed to protect and promote the good health of the pupils are covered in this category.

V. Accessibility of the School Plant

This term refers to the proximity of the school to the pupil population center of the area served, the character of approaching roads and streets, as well as a few general building and site features affecting ease of access to the building.

VI. Flexibility of the School Plant

This term refers to the possibility of change, as incorporated in the construction of the building and the development of the site, to meet new demands as the curriculum changes.

VII. Efficiency of the School Plant

Efficiency is the securing of maximum effect with a minimum of effort. An efficient building makes possible the reduction of pupil travel to a minimum, provides convenient custodial facilities, isolates areas of noise, and has facilities located for maximum utilization.

VIII. Economy of the School Plant

Economy is the achievement of proper plant operation at minimum cost. The economical school plant fully utilizes natural light and conserves heat, electrical energy, and water.

IX. Expansibility of the School Plant

Expansibility refers to the possibility for enlargement of the building and site to meet educational needs. Building expansibility is chiefly achieved through construction details and attention to heating and ventilating possibilities.

X. Appearance of the School Plant

Appearance refers to how the school looks and whether it is pleasing to the eye. Attention is directed to landscaping, color harmony, appropriateness of furnishing and use of decoration.

FIELDS-SWEET

FIELDS-SWEET ELEMENTARY SCHOOL

Address: 8540 Root Road
Telephone: 327-4484
Principal: Mr. John O'Hara
No. of Teachers: 17
Enrollment: 492

Descriptive Data

Fields-Sweet Elementary School, located on Root Road south of the Ohio Turnpike, is situated on an 11.6 acre site. Approximately 10 acres are available for recreational use, but only a small portion of this area has a hard playing surface. Paved parking facilities are located to the southwest of the main entrance and are separated from the playground by safety fences.

The initial one-story structure was constructed in 1920 and houses three classrooms which are presently used for kindergarten and second grade pupils. The 1954 addition is a two-story structure constructed at the Northwest corner of the original building. This addition houses four classrooms and three classrooms converted from spaces initially intended for the library, music room, and clinic. The latter area presently houses the remedial reading program and as such services a smaller number of students than a regular instructional space. Included in the 1954 addition is the multipurpose room with a storage area currently utilized as a library. A second addition was constructed in 1962 and houses eight general classrooms one of which was originally intended as an art room.

The current enrollment is 492 pupils of which 471 are transported to the building at the school system's expense. Approximately 97% of the student population eat lunch in the 200 capacity multipurpose facility. The self-contained program is organized on a K-4 plan with four sections each of kindergarten and first grade and three sections each of grades two

through four.

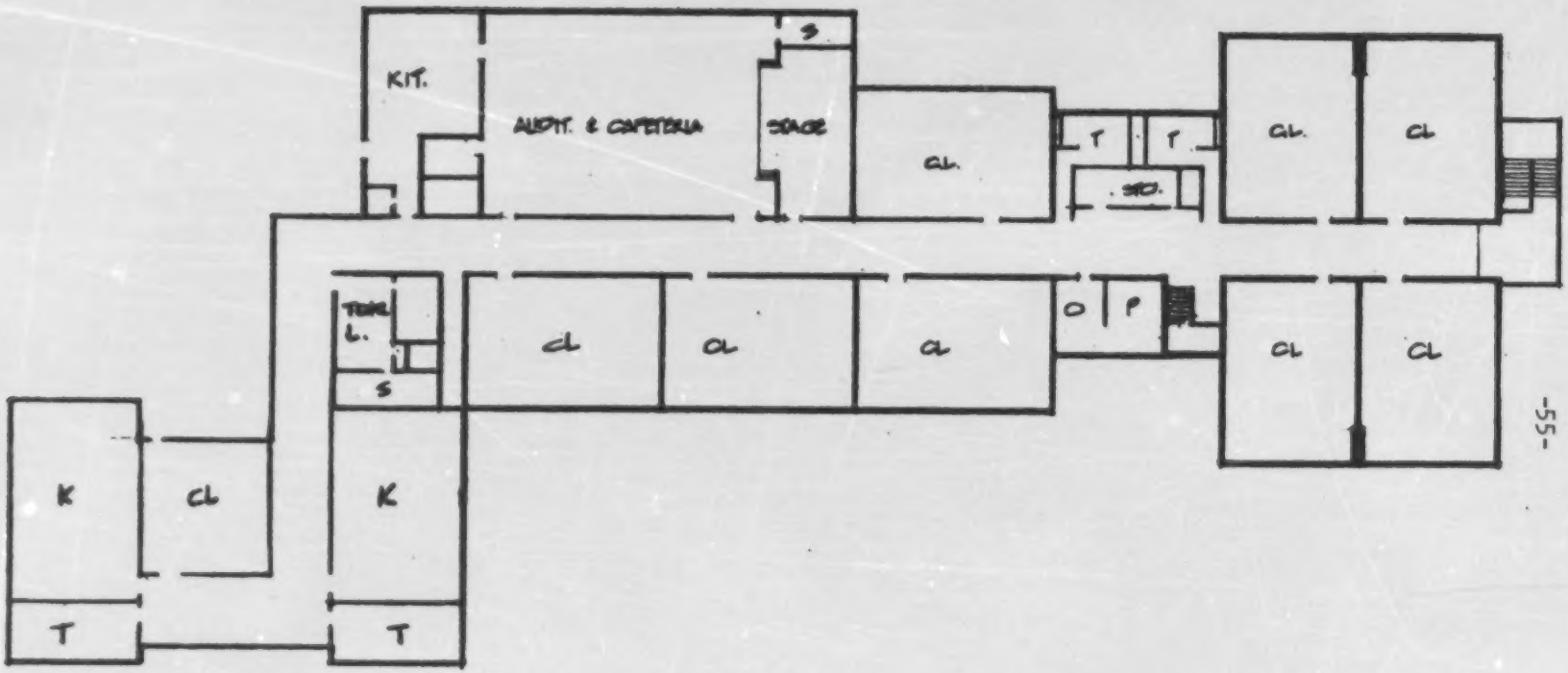
Present facility utilization is:

15 General classrooms
1 Remedial reading room
(initially intended for clinic)
1 Learning disabilities unit
(initially intended for library)
1 Learning center
(initially intended for music room)
1 Speech therapy unit
(initially intended for custodial storage room)
1 Multipurpose room with adjoining kitchen
1 Library
(initially intended for auditorium stage)
1 General office area

Facility Evaluation

Fields-Sweet Elementary School is an adequate facility for housing the present educational program. However, as indicated by the low rating in flexibility, the major weakness of this building is its structural limitations which prohibit adaption to shifts in program.

A second weakness results from inadequate library facilities. This component of the evaluation is most directly reflected by the adequacy rating. However, potential problems of flexibility surface in response to possible program adjustments which would mandate regular pupil use of non-classroom instructional materials.



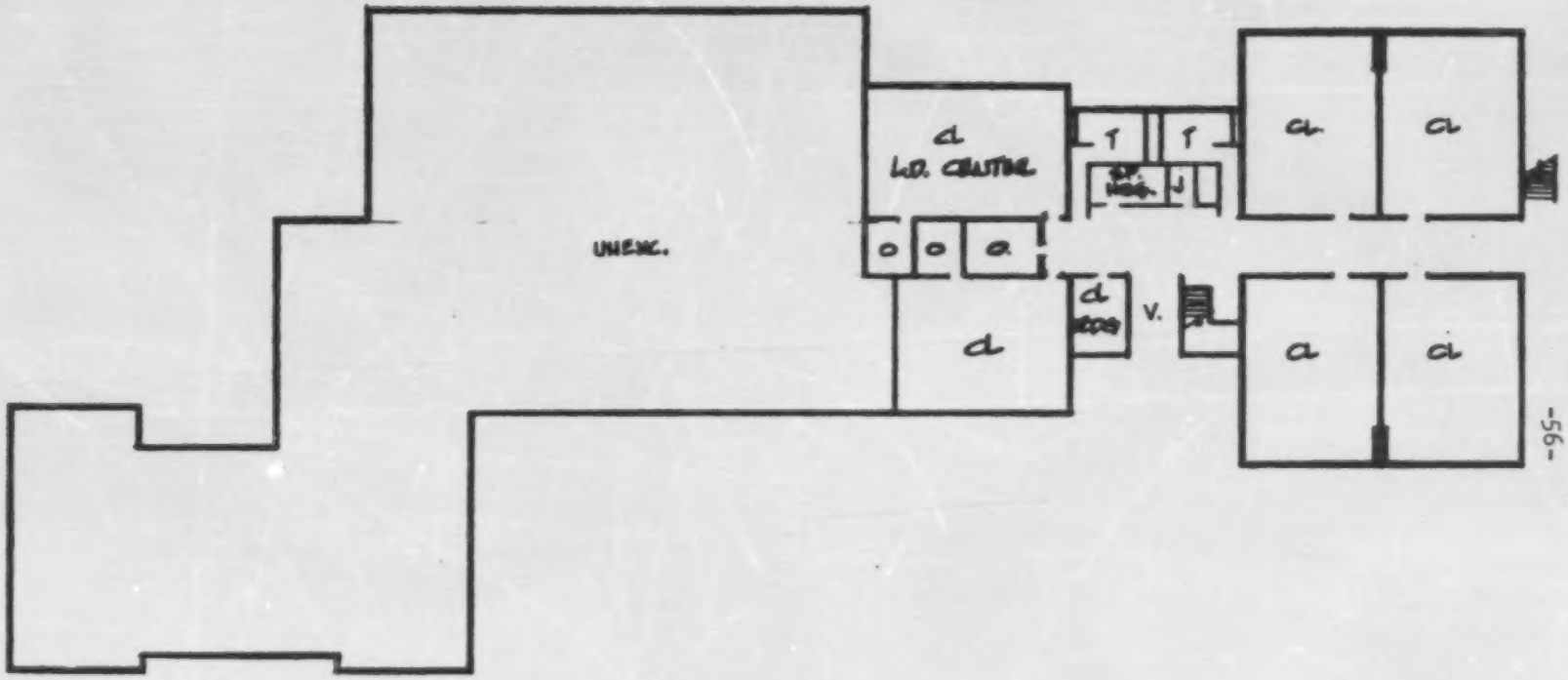
NORTH

FIELDS ELEMENTARY SCHOOL UPPER LEVEL SCALE 1:30

NORTH RIDGEVILLE CITY SCHOOLS

3/9/76

Architects · Planners Van Auken Bridges Pimm Poggi
1900 Shaker Boulevard · Cleveland
Ohio 44120 · Tele 216 · 229 · 9191



NORTH

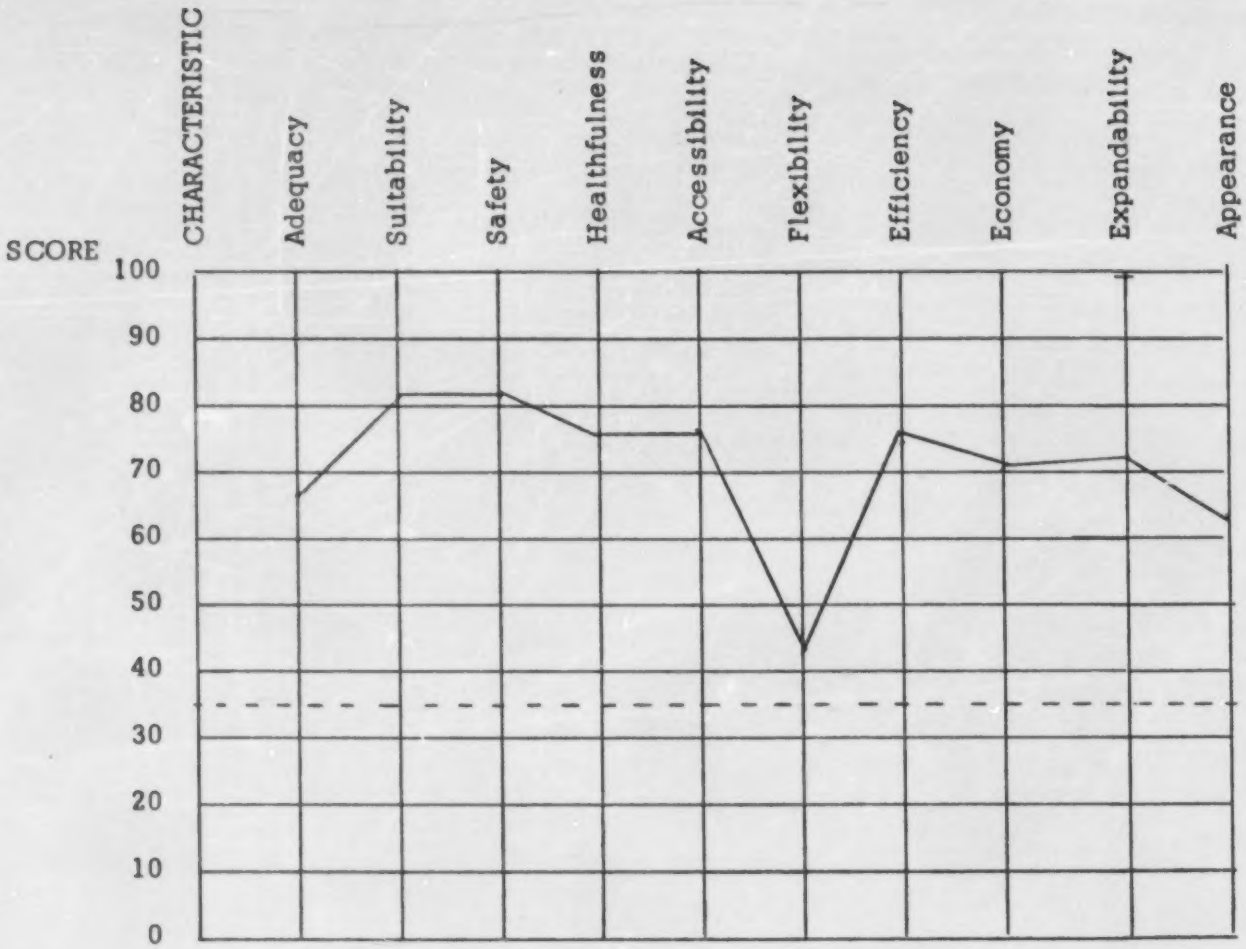
FIELDS ELEMENTARY SCHOOL LOWER LEVEL SCALE 1:30

NORTH RIDGEVILLE CITY SCHOOLS

3/3/76

Architects · Planners Van Auken Bridges Pimm Poggianti

1900 Shaker Boulevard · Cleveland Ohio 44120 · Tele 216 · 229 · 9191



FIELDS-SWEET ELEMENTARY

LEAR-NORTH

LEAR NORTH ELEMENTARY SCHOOL

Address: 5580 N. Lear Nagle Road
Telephone: 327-8440
Principal: Dr. Walter Stowers
No. of Teachers: 16
Enrollment: 490

Descriptive Data

Lear North Elementary School is located on a 14.1 acre site on North Lear Nagle Road just South of the city of Avon. Approximately 13 acres are available for recreational use, but less than one acre is designated as a playground with a hard-topped surface. Ample parking facilities are provided for staff and visitors.

The one-story structure was constructed in 1967 and houses 15 classrooms, as well as support service areas such as multipurpose room, library, clinic, office areas, etc. A supply room is presently being utilized as an EMR classroom, bringing the total number of instructional rooms to 16. In addition, smaller spaces such as the guidance office and clinic fulfill a dual purpose by providing areas for individual tutorial services and reading instruction.

Current enrollment is 490 of which 155 pupils are transported to the facility at the school system's expense. Approximately 75% of the student population eat lunch at school and are accommodated in the 200 pupil capacity multipurpose room. The self-contained program is organized on a K-4 plan with four sections each of kindergarten and first grade and three sections each of grades two through four.

Present facility utilization is:

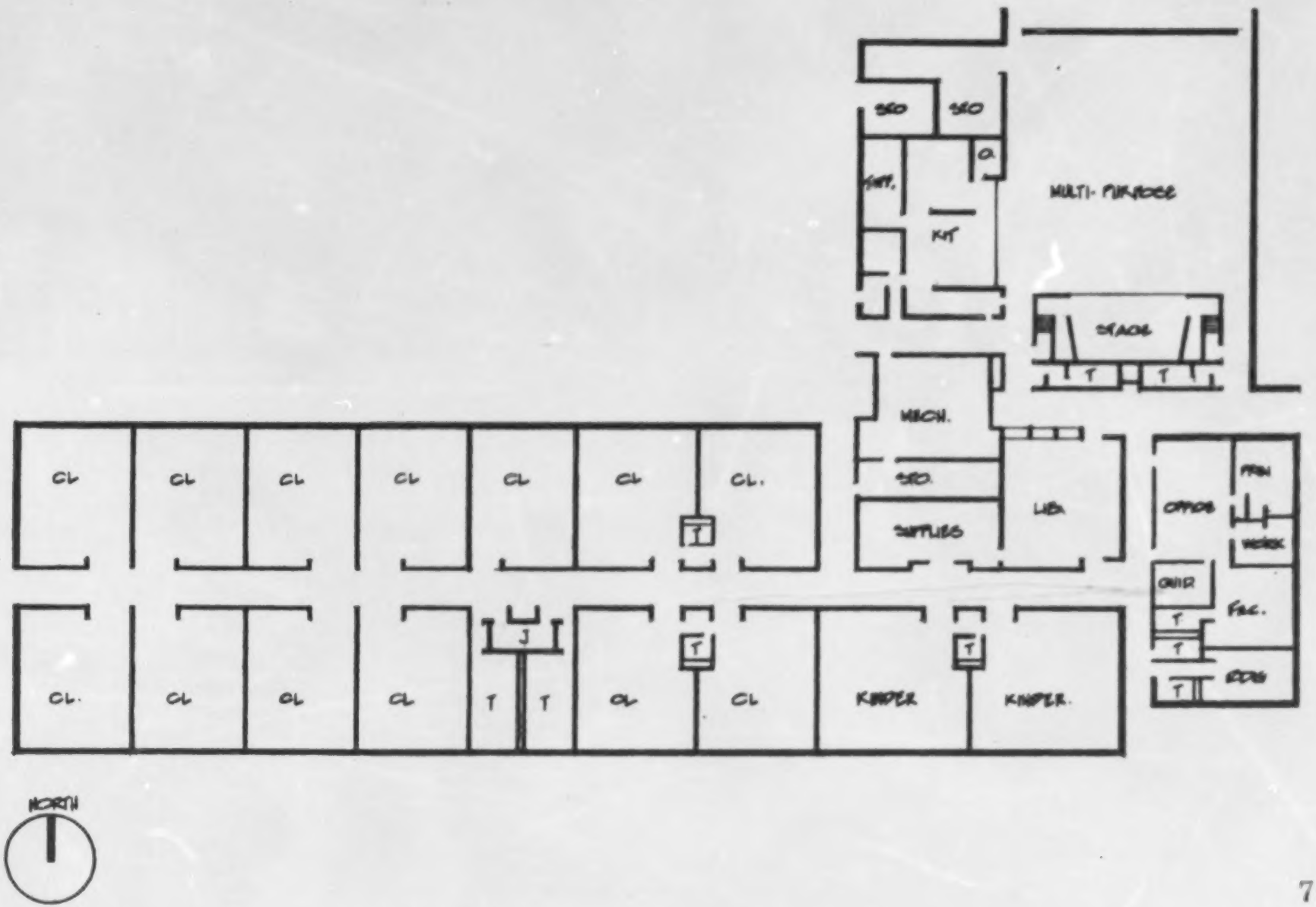
15 General classrooms
1 EMR classroom (formerly a supply room)

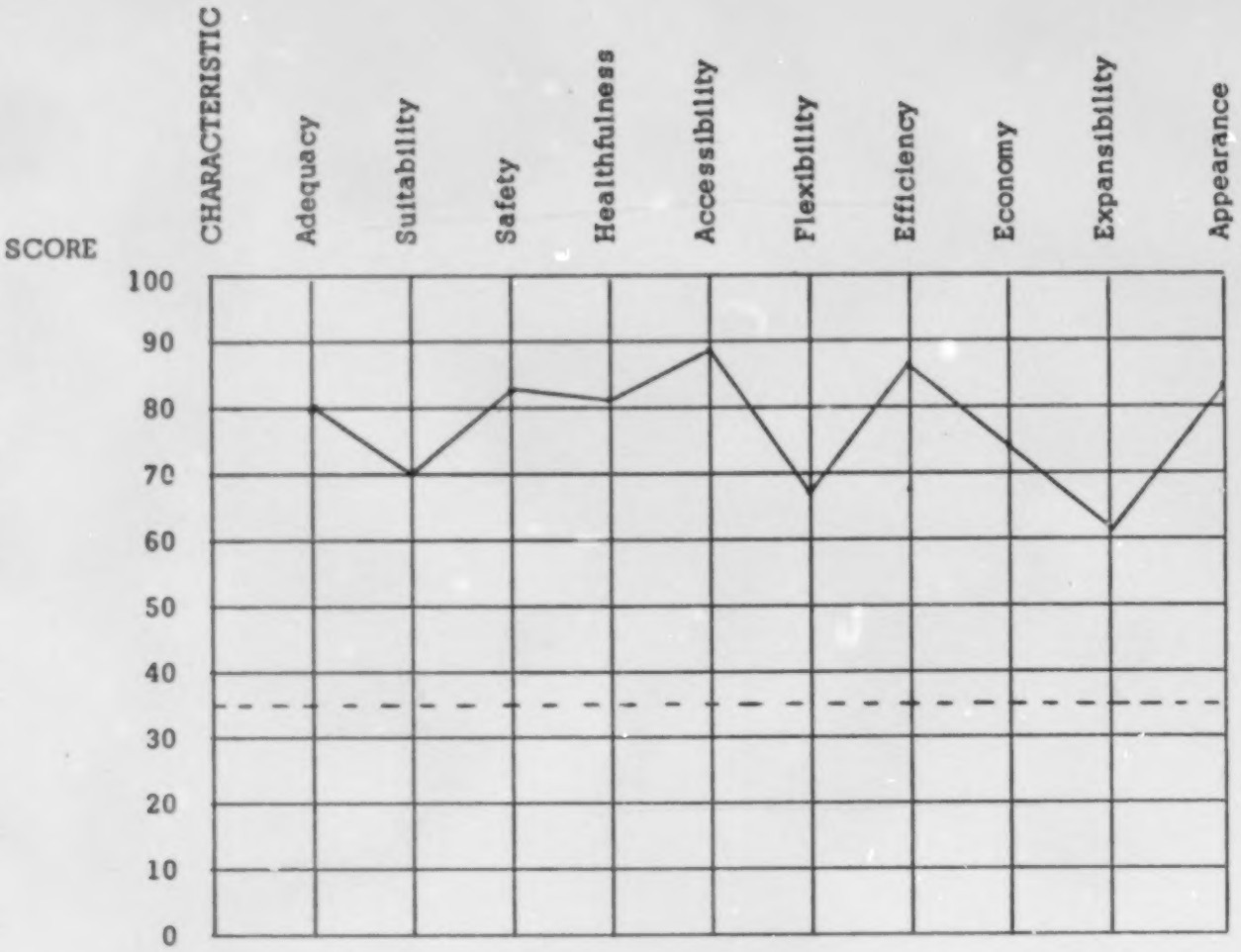
1 Multipurpose facility with adjoining kitchen
1 Library
1 Clinic
1 Lounge
1 Guidance area
1 Workroom
1 General office area

Facility Evaluation

Lear North Elementary School falls within acceptable limits on all functional characteristics. The two areas of relative weaknesses are flexibility and expansibility. The former rating reflects the inability to adapt classrooms to large group and multiple use, as well as playground restrictions imposed by the lack of hard-surfaced areas. The rating for expansibility reflects the limited capacities of support services such as the library and multipurpose room. Expansion of the present facility would render these support areas inadequate and partially inaccessible.

These minor weaknesses do not substantially diminish the overall quality of the building which is a good facility and well suited to the present educational program.


CL
CL
CL
CL
CL
CL
CL.
CL.
CL
CL
CL
CL
T
T
J
T
T
CL
CL
KINDER
KINDER.
T
T
SEC
SEC
MECH.
LIB
SUPPLIES
MULTI-PURPOSE
STAGE
T
T
KIT
OFFICE
T
T
T



LEAR NORTH ELEMENTARY

LIBERTY

LIBERTY ELEMENTARY SCHOOL

Address: Jaycox Road
Telephone:
Principal: (This information was not available
No. of Teachers: prior to the writing of this report).
Enrollment:

Descriptive Data

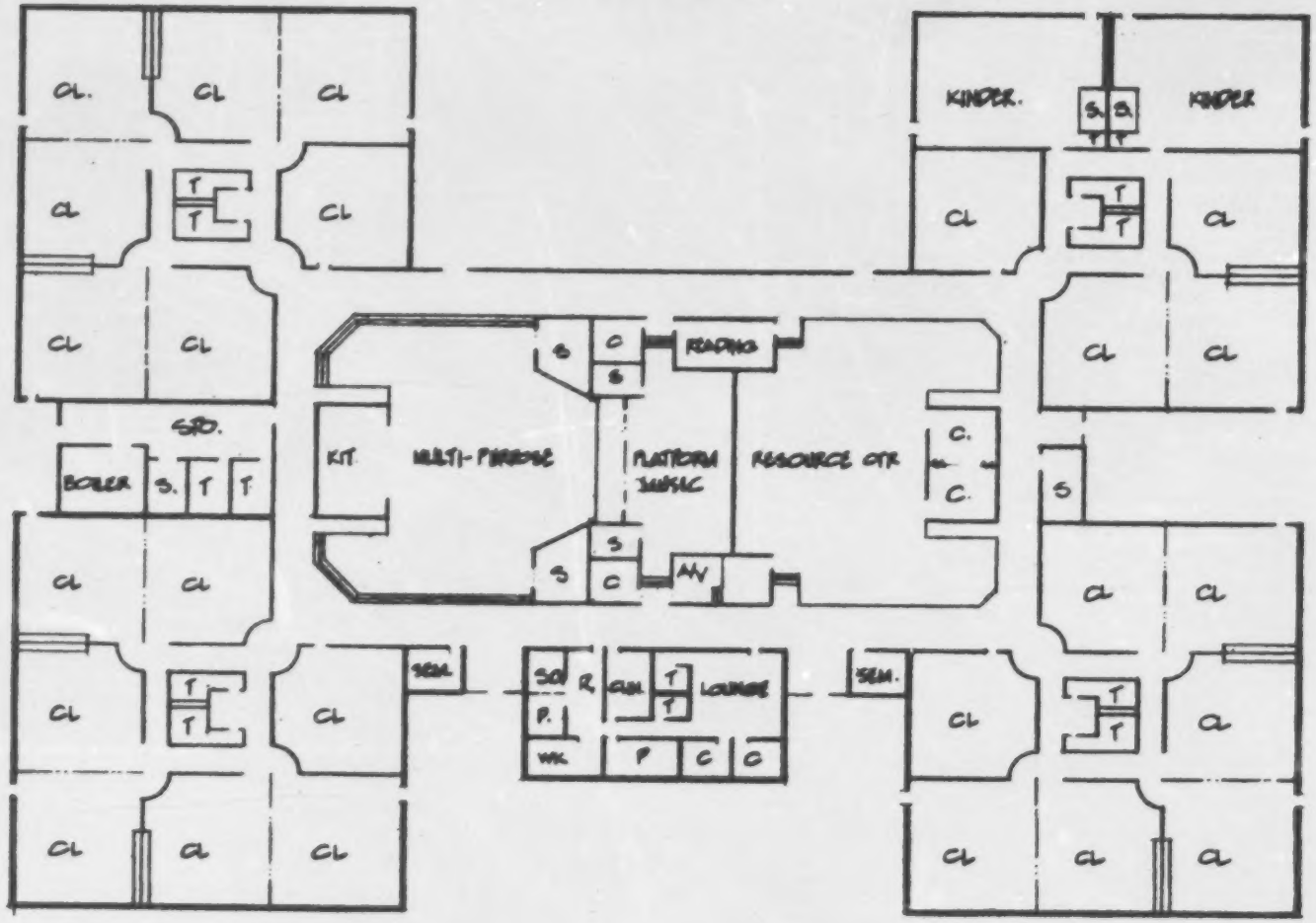
Liberty Elementary School, situated on a 15 acre site on Jaycox Road, is a new facility slated to begin operations in September of 1976. The building is designed as an open-space instructional facility with several self-contained areas for special program use, e. g., kindergarten. Four pods of 6,000 square feet each are arranged around the central support services area. Each pod may be subdivided into seven classroom areas by flexible partitions. The support services area consists of a resource center and multipurpose area which are separated from each other by a platform-music space. Kitchen facilities are provided, but will be used primarily for heating and serving food prepared at another facility and satellited to Liberty. The prospective enrollment of 500 pupils will be drawn from grades kindergarten through five presently housed in other schools within the system. It is anticipated that the majority of pupils will live in the immediate neighborhood, thus reducing the number of students presently being transported to other buildings.

Facility Evaluation

Liberty Elementary School is an attractive building located on a well landscaped site of ample size. Rooms are spacious, flexible, and situated so as to use a maximum amount of natural light. Difficulty in evaluating this facility resulted from a lack of program description which has not

yet been finalized. However, exclusive of elements requiring knowledge of prospective curriculum, two relative weaknesses were identified. The major disadvantage of Liberty is related to its structural arrangement. Due to the building's design, expansion is unfeasible, especially relative to the support services facilities. The elements of suitability which affected the evaluation rating reflects the lack of equipment and site development to accommodate children of various age/grade groupings.

The non-completion of construction at the time of the study team's on-site visitation may partially account for these apparent deficiencies.

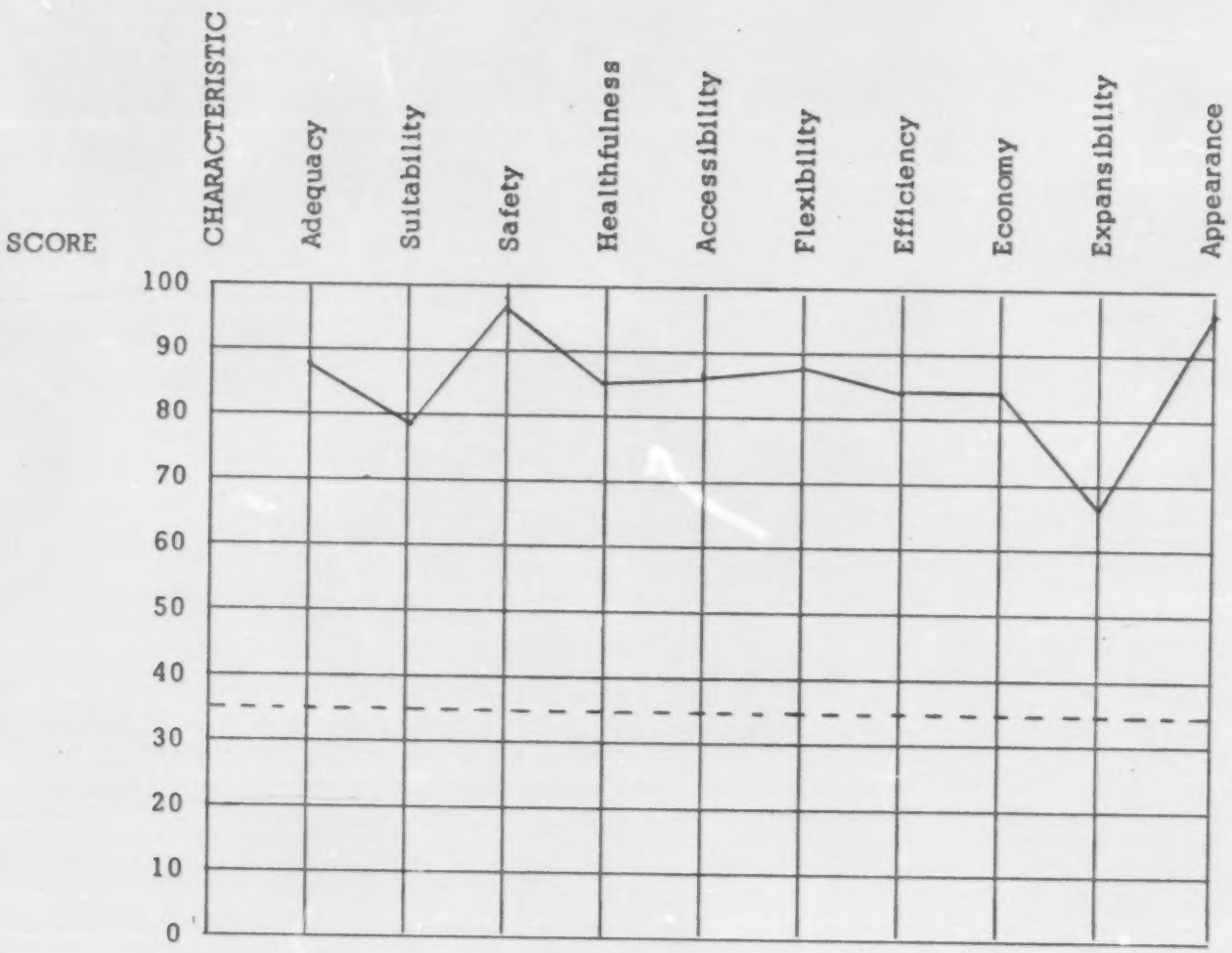


LIBERTY ELEMENTARY SCHOOL SCALE: 1:40

NORTH RIDGEVILLE CITY SCHOOLS

3/'76

Architects · Planners Van Auken Bridges Pimm Poggianti
9800 Shaker Boulevard · Cleveland
Ohio 44120 · Tele 216 · 229 · 9101



LIBERTY ELEMENTARY

WILCOX

WILCOX ELEMENTARY SCHOOL

Address: 34580 Bainbridge Road
Telephone: 327-5541
Principal: Mr. Donald Casey
No. of Teachers: 36
Enrollment: 1006

Descriptive Data

Wilcox Elementary School is located on a 48.52 acre site which is shared with North Ridgeville Senior High School. The site is attractively landscaped and provides ample area for recreational use. A hard-surfaced playing area with suitable equipment is located at the northwest corner of the building and is well separated from the parking lot by a safety fence.

The original one-story structure was constructed in 1958 and contains 20 classrooms, general office area, and a portable office and storage space. A one-story addition was constructed in 1962 at the north side of the original building. This addition contains 13 classrooms, music room, library and multipurpose room. The design is a modified open space with classroom units arranged along a totally open corridor. While this structural scheme feasibly provides multiple use of classroom spaces, movement of pupils through the corridor does cause a disturbance for other classes in session. This problem is partially alleviated in the new wing by the presence of portable walls on classrooms to the north of the corridor. Lavatory facilities are contained within each classroom unit and additional lavatories are located near the multipurpose facility. Each pair of classroom units shares a storage room and exit door to the outside of the building.

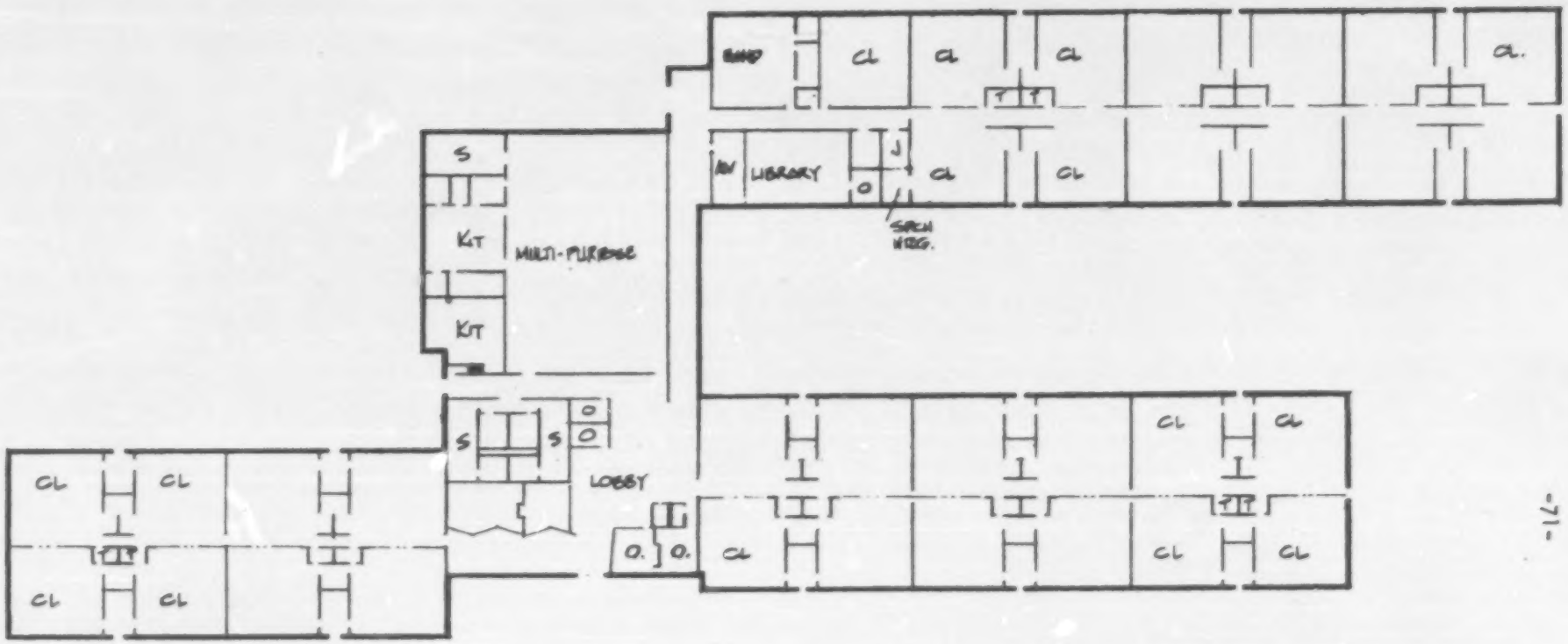
Present enrollment at Wilcox is 1006 pupils, of which 719 are transported at the school system's expense. The multipurpose room with a

capacity of 300 pupils serves as the cafeteria/dining room for the 800 pupils who remain in school during the lunch period. The program is predominantly self-contained and organized on a K-4 plan. Some team teaching is implemented within grade groupings for a limited number of curricular activities. Present facility utilization is:

32 General classrooms
1 L.D. unit
1 Speech therapy unit
1 Library
1 Music room
1 Multipurpose facility with adjoining kitchen
2 General office areas
1 Teachers' lounge and workroom

Facility Evaluation

Wilcox Elementary School is an attractive building which adequately houses the present educational program. The major weakness, as represented in the profile, is in the area of expansibility. The two characteristics primarily responsible for this low rating are the lack of support service space and the lack of congestion-free corridor space to accommodate an expanded facility. Other weaknesses reflected by the profile are: poor lighting, lack of site development relative to the number and ages of pupils enrolled and the maintenance problems resulting from the design and construction of the roof.



-71-

NORTH

90

91

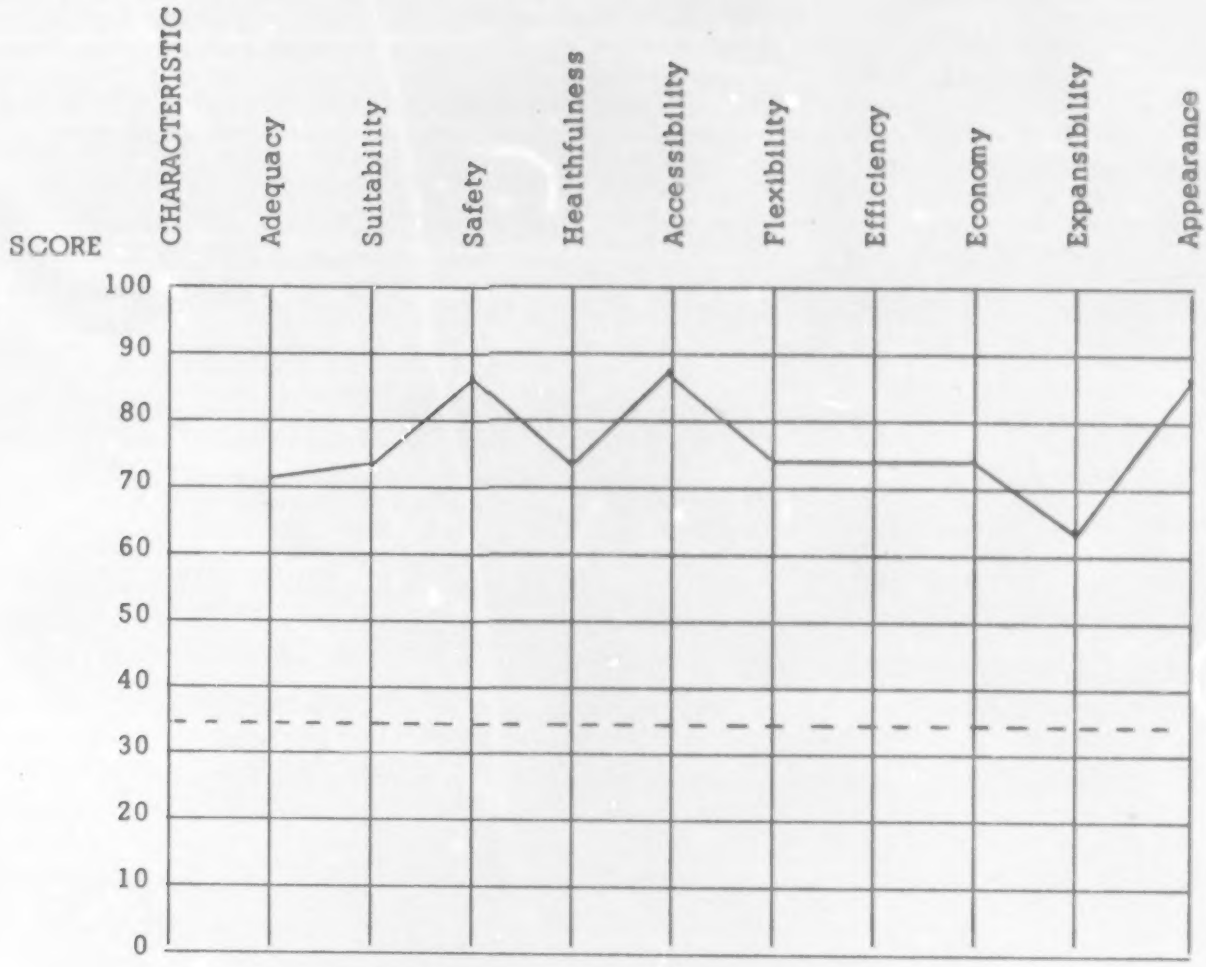
WILCOX ELEMENTARY SCHOOL SCALE 1:40

NORTH RIDGEVILLE CITY SCHOOLS

3/3/76

Architects · Planners Van Auken Bridges Pimm Poggianti

11900 Shaker Boulevard · Cleveland
Ohio 44120 · Tele 216 · 229 · 9191



WILCOX ELEMENTARY

NORTH RIDGEVILLE MIDDLE SCHOOL

NORTH RIDGEVILLE MIDDLE SCHOOL

Address: 35895 Center Ridge Road
Telephone: 327-8876
Principal: Mr. Donald Jenkins
No. of Teachers: 58
Enrollment: 1516

Descriptive Data

The North Ridgeville Middle School is situated on a 16 acre site of which 2 acres have been designated as playground space. The athletic field and grandstand for the school system are located at the south end of the site. Paved parking facilities are provided, but are inadequate to accommodate the needs of this combined educational and central office facility.

The original three-story building was constructed in 1923 and houses 15 classrooms, the library (formerly an auditorium with stage), a cafeteria, boiler room, and custodial work and storage space. Several modifications were made in 1929 providing an additional 8 classrooms. In 1953, a gymnasium with stage and balcony was added to the south end of the original building. This addition also provides one classroom and locker facilities for boys and girls. At this same time a separate facility identified as the industrial arts annex was constructed to the southeast of the original structure. It contains three instructional areas used for wood, metals and mechanical drawing. A new three-story wing was added in 1969 to the north side of the original building. Included in this addition are classrooms, guidance area, multipurpose room with adjoining kitchen, music room, teachers' workroom and lounge and central administration offices.

The school is presently organized on a 5-8 plan, however, fifth grade pupils will be housed in the system's four elementary schools beginning

September, 1976. The program for fifth and sixth grade pupils is primarily self-contained with the exception of music, art, and physical education and is designed as a transitional program to assist pupils in a gradual adjustment from elementary to secondary school. Seventh and eighth grade pupils operate on a departmentalized schedule consisting of a traditional junior high school program.

Present facility utilization is:

Instructional	Service
37 General classrooms	1 Library
3 Music rooms	2 Cafeterias
3 Art rooms	1 Clinic
3 Home economics rooms	2 Guidance offices
2 Special education rooms	3 Administrative office areas
1 Science room	2 Physical education offices
1 Reading room	1 IDEA office and library
1 Gymnasium	1 Teachers' lounge
1 Typing room	7 Office areas for Central Administration Staff

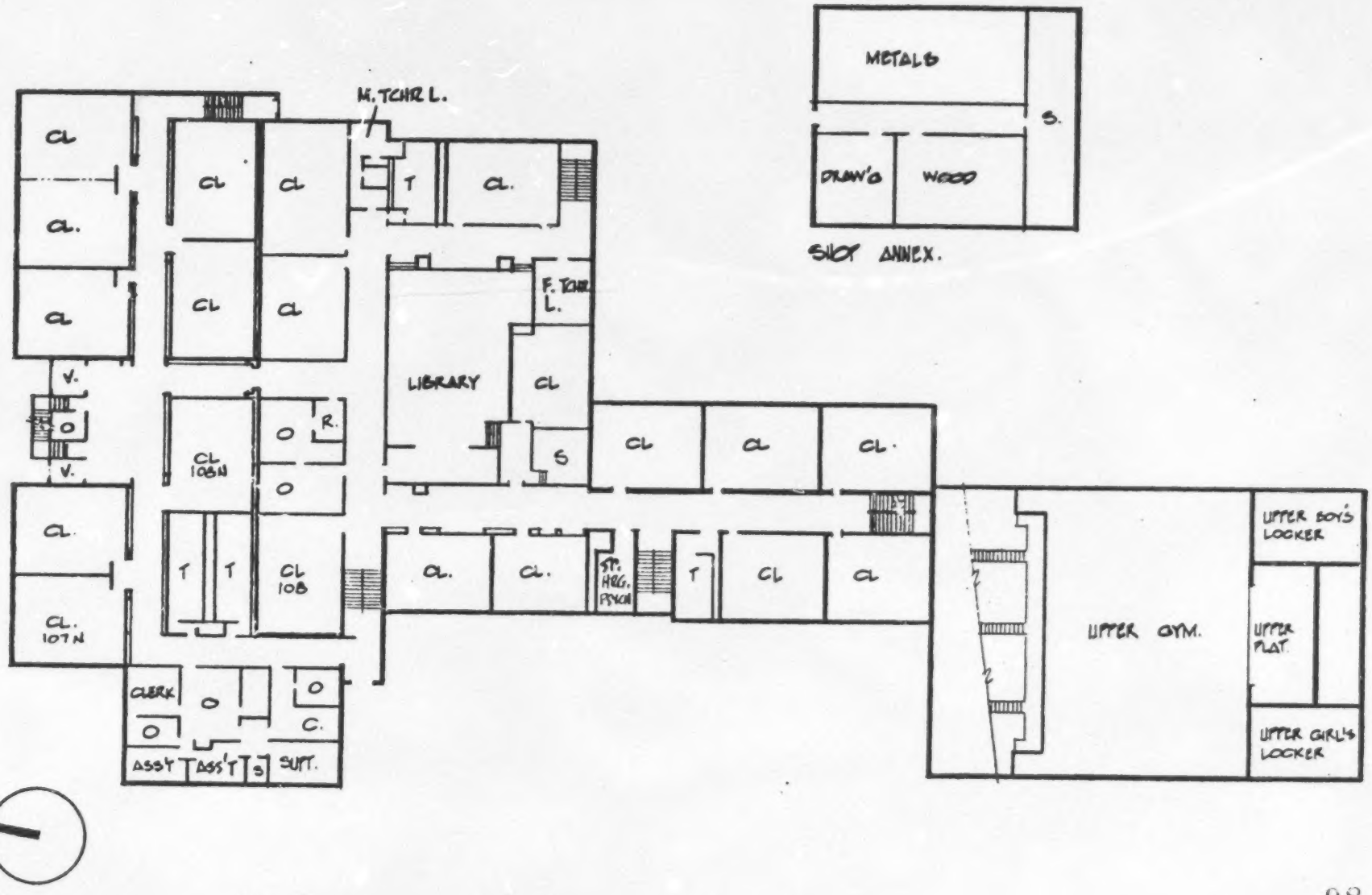
Facility Evaluation

The North Ridgeville Middle School is the focal point of concern for the study team. With the exception of the 1969 addition, the facility is below acceptable standards in adequacy, flexibility, efficiency, economy, expansibility, and appearance. In addition, the areas of suitability, safety and healthfulness received low enough ratings to question the continued use of this facility for instructional purposes. The major restriction to submitting such a recommendation is the system's lack of financial resources in combination with existing needs in other facilities.

A summary of this building's deficiencies which account for the low profile ratings is as follows:

- Insufficient number of classrooms for the present enrollment.

- Safety hazards to children resulting from location and design of parking facilities and driveways.
- The library facility is inadequate in size and construction to provide the type of services desired by the district's program.
- Uneconomical use of fuel specifically resulting from three separate types of heating systems.
- Construction patterns of the facility cause congestion of pupil traffic.
- Special facilities such as science and industrial arts are inadequate in size and equipment to properly house the desired program.
- The building lacks elements of flexibility to permit multiple use of rooms.
- The size of the site is below national standards for a middle school facility.



-77-

97

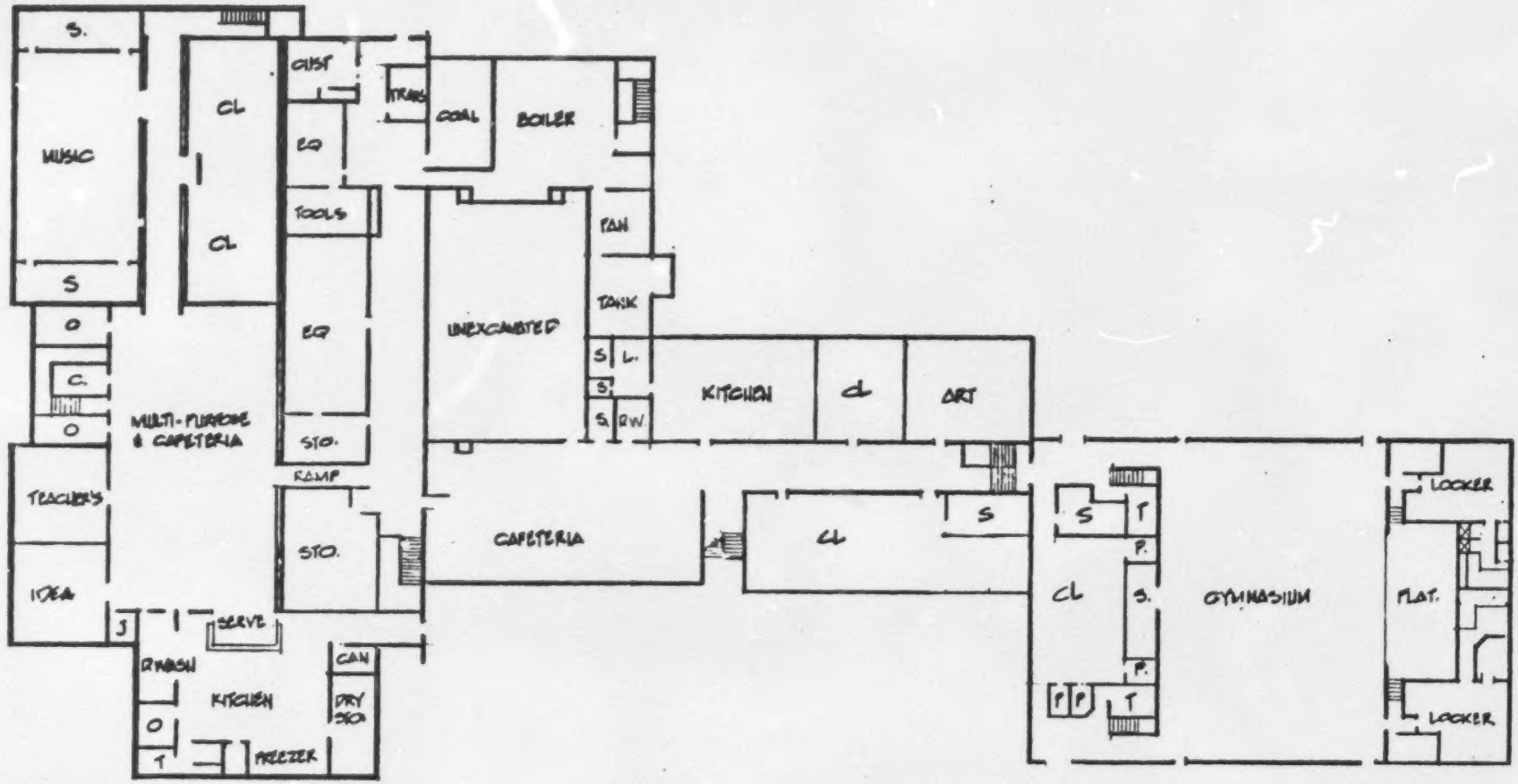
MIDDLE SCHOOL MAIN LEVEL SCALE 1:40

NORTH RIDGEVILLE CITY SCHOOLS

3/3/76

98

Architects · Planners Van Auken Bridges Pimm Poggianti
1900 Shaker Boulevard - Cleveland
Ohio 44120 - Tele 216 · 229 · 9191



99

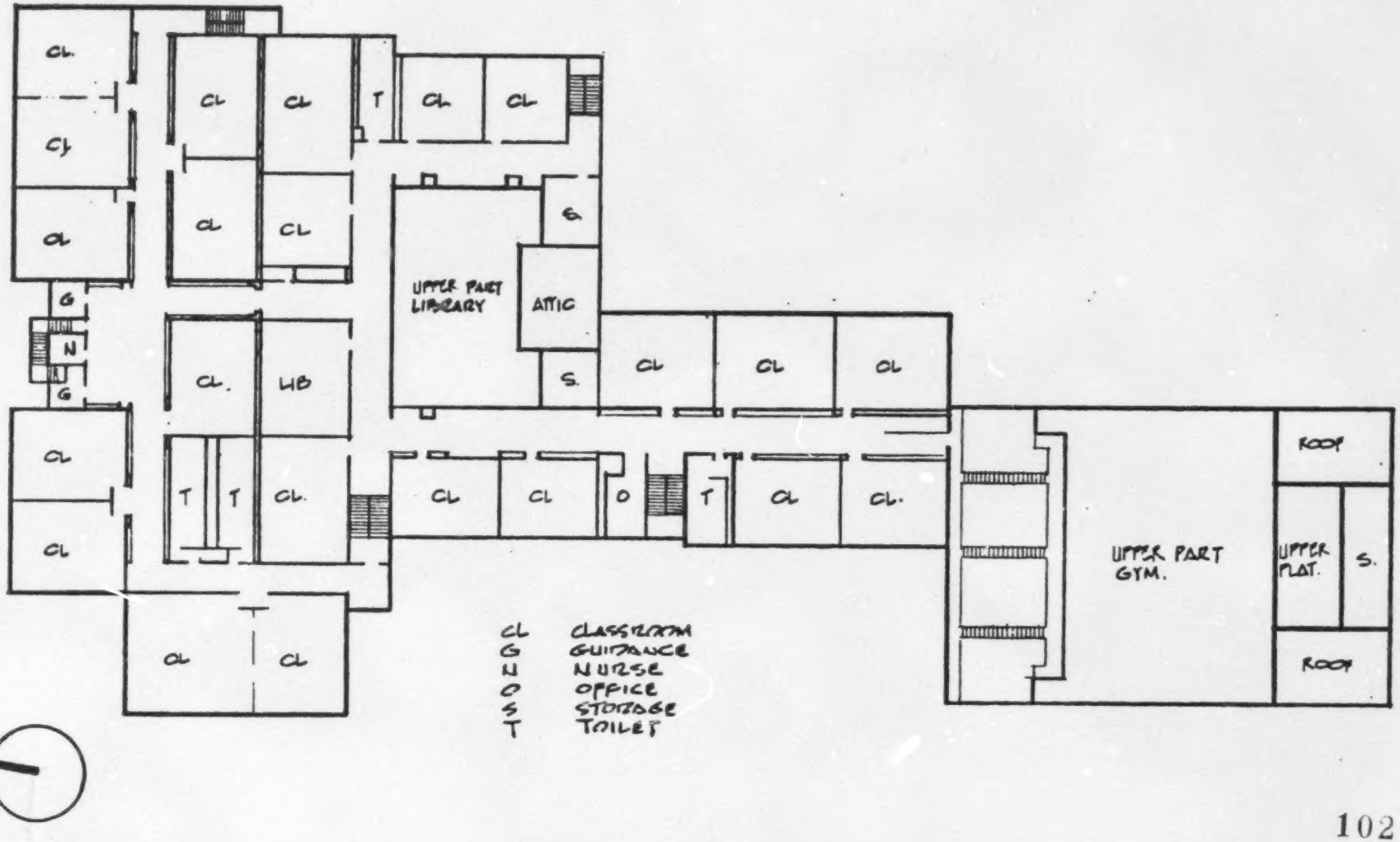
100

MIDDLE SCHOOL. LOWER LEVEL SCALE 1:40

NORTH RIDGEVILLE CITY SCHOOLS

Architects · Planners Van Auken Bridges Pimm Poggia, III

1300 Sumner Boulevard · Cleveland
Ohio 44113 · Tele 216 · 229 · 9191



-79-

101

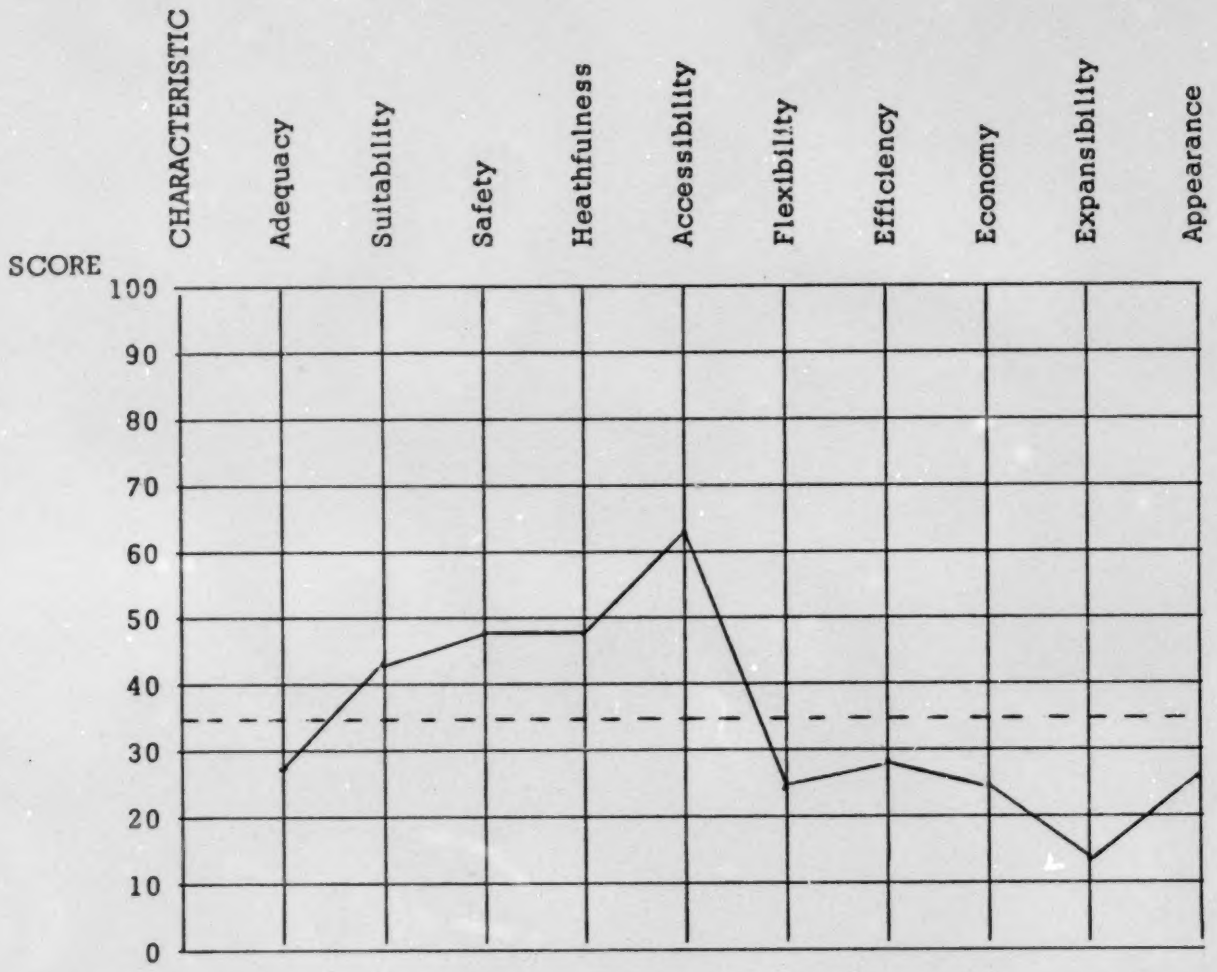
102

MIDDLE SCHOOL UPPER LEVEL SCALE: 1:40

NORTH RIDGEVILLE CITY SCHOOLS

3/3'16

Architects · Planners Van Auken Bridges Pimm Poggianti
11900 Shaker Boulevard · Cleveland
Ohio 44120 · Tele 216-229-9191



NORTH RIDGEVILLE MIDDLE SCHOOL

NORTH RIDGEVILLE HIGH SCHOOL

NORTH RIDGEVILLE SENIOR HIGH

Address: 7000 Pitts Blvd.
Telephone: 327-6711
Principal: Mr. Phillip Trout
No. of Teachers: 59
Enrollment: 1390

Descriptive Data

North Ridgeville Senior High School is located on a 48.52 acre site which is located on a 48.52 acre site which is shared with Wilcox Elementary School. Also located on this site is the bus garage and maintenance area. Paved parking facilities are provided for faculty, staff, and students.

The original one-story structure was constructed in 1967 and houses 35 classrooms, gym, library, cafeteria with adjoining kitchen and general office area. Three additions were constructed in 1971 which house 22 classrooms, a little theatre, a wrestling room adjacent to the original gym and a vocal music room.

The departmentalized program is organized on a 9-12 plan consisting of a traditional curriculum supplemented by some special programs, such as OWA/OWE, COE and Distributive Education (DE), the school system's participation in the local Joint Vocational School provides extensive vocational training for approximately 50 senior high students, most of whom are juniors in academic standing.

North Ridgeville schools operate on a closed campus concept which means that students are required to remain at school through the lunch periods. Consequently, nearly the entire pupil population of 1390 is serviced by the 315 capacity cafeteria. Each of the two lunch periods is further divided into two sections in an attempt to provide time and space for all pupils.

Since this facility is the district's only senior high school, nearly 90% of the pupils are transported at the school system's expense. The remaining 10% either walk or drive to school each day.

Present facility utilization is:

Instructional	Service
21 General classrooms	1 Library
4 Science rooms	1 Cafeteria (With adjoining kitchen)
2 Art rooms	1 Clinic
2 Music rooms (with practice areas)	17 Office areas
5 Business education rooms	1 Audio-visual storage room
4 Industrial arts areas	1 Small theatre
1 Gymnasium (with locker facilities)	1 Faculty lounge
3 Home economics rooms	

Facility Evaluation

North Ridgeville Senior High School, while certainly adequate as an instructional facility, has certain limitations which presently hinder the overall effectiveness of the educational program. The relatively lower ratings in adequacy, flexibility, efficiency, and expansibility reflect these deficiencies. The two major weaknesses are related to size. The present library and cafeteria are too small to adequately service the present and anticipated enrollments. In addition, pupil personnel service areas, such as guidance, lack sufficient space to fully achieve the department's goals. Other weaknesses include a lack of teaching stations in science and art, a lack of administrative work and storage space, and the placement of hallways which creates congestion of pupil traffic between classes.

LEGEND

D.R.	DRESSING RM.	H	HEALTH SUITE
CL.	CLASSROOM	O	OFFICE
T	TOILET	F	FACULTY RM
M.P.	MULTI-PURPOSE	S	STORAGE
L	LIBRARY	M	MUSIC

-84-

107

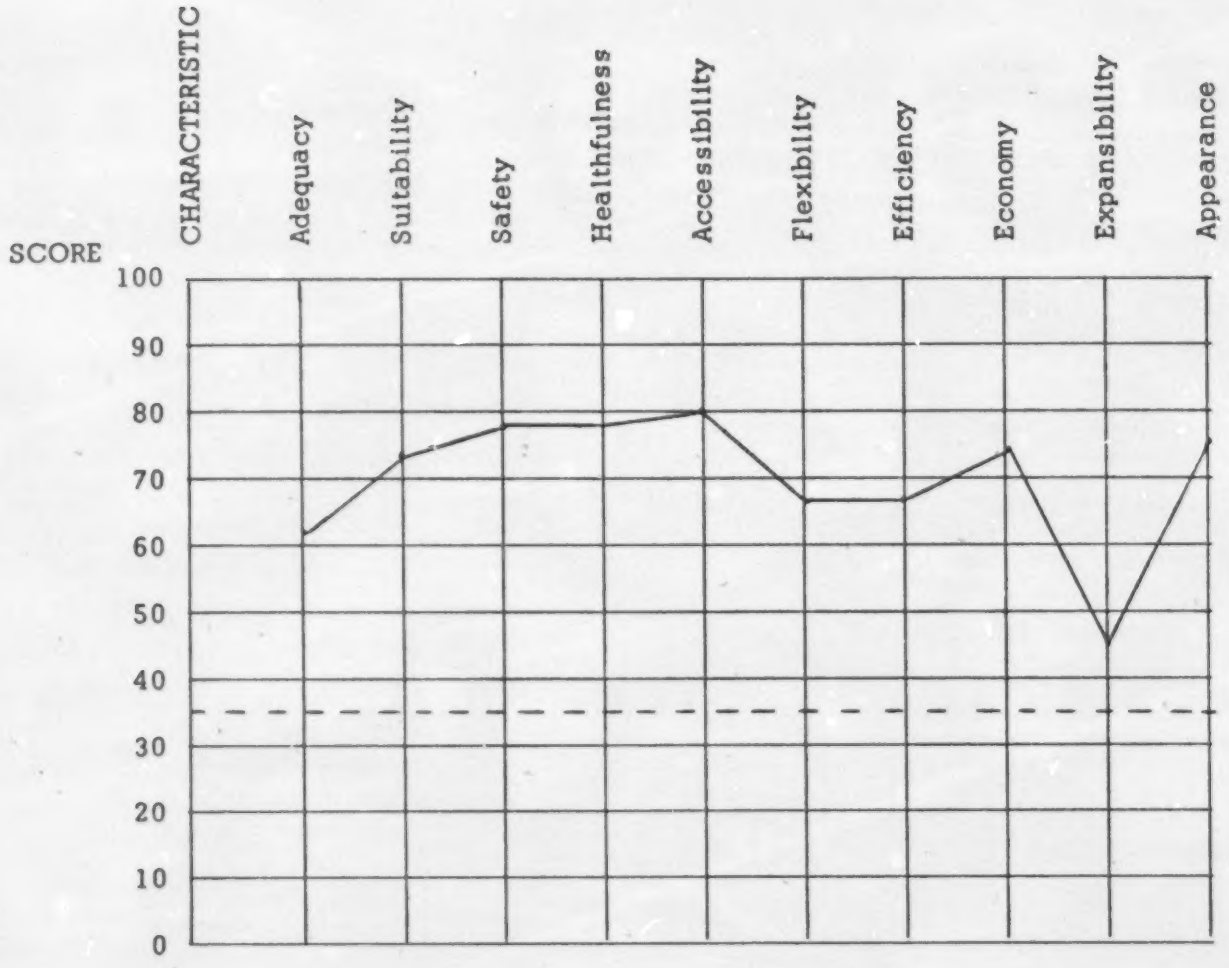
SENIOR HIGH SCHOOL SCALE 1:50

NORTH RIDGEVILLE CITY SCHOOLS

3/3/76

Architects · Planners Van Auken Bridges Pimm Poggianti

19800 Shaker Boulevard · Cleveland
Ohio 44120 · Tele 216-229-9191



NORTH RIDGEVILLE SENIOR HIGH

FINANCE

PART IV: FINANCIAL RESOURCES

The financial resources of the North Ridgeville City School District have been examined by the study team in order to arrive at an assessment of the extent to which funds will be potentially available for the possible implementation of the recommendations of the study team. A critical factor in undergoing such an educational planning process, is the amount of money which the school district can raise, under existing statutes, for the improvement and expansion of educational facilities.

Research has demonstrated that a major predictor of the success or failure of school financial elections is the history of previous requests for voter approval of tax issues. Consequently, the record of citizen willingness to provide required monies for school plant and other educational expenditures was also reviewed. The disposition of school renewal levies submitted since 1960 (Table 12) indicates positive voter response (80%). However, the disposition of additional levies for school bond issues (Table 13) reflects a high degree of voter failure (77%). Further examination of Table 12 also indicates a 30% decrease in the percentage of voters voting for the school renewal levies that carried; that is, from a high of 77.9% in November, 1961, to a low of 54.7% in November, 1975. Further examination of Table 13 indicates a 34% increase in the percentage of voters voting against the additional school levies that failed; that is, from a low of 52.6% in November, 1968, to a high of 70.3% in November, 1974. However, there is also reflected a 10.7% decrease in the percentage of votes against additional levies in 1974 and 1975. The results should be taken into serious consideration by the North Ridgeville City School District officials when placing future bond issues on the ballot.

Upon examination of Table 14, it was determined that the assessed valuation of the North Ridgeville City School District increased 129% between 1968 and 1976 with the largest annual increase of 28.5% occurring from 1971 to 1972. The average annual increase from 1968 to 1976 was 11.15%; however, examining the data for consistency revealed a reasonably consistent average annual increase in the assessed valuation of 11.7% from 1973 to 1976. The study team determined that the 11.7% figure was sufficient to use for a conservative extrapolation factor in projecting possible future annual increases in the assessed valuation in order to estimate the amount of money that the school district could potentially raise for the improvement and expansion of educational facilities. Therefore, applying the 11.7% projected annual increase in the valuation figure $61,645,966, the following assessed valuation figures for 1977 and 1978 were computed:

1977	$68,858,544
1978	$76,914,993

In consideration of recent reassessment statutes, the study team is confident that the increase in assessed valuation for 1977 will not go below 11.7% and may even approach 20%. In any event, it will be a relatively uncomplicated matter for the school district officials to adjust the included computations to the exact 1977 assessed valuation schedule that is finally determined.

The bonded indebtedness of the North Ridgeville City School District in 1975 was $3,835,000, of which $265,000 was paid, resulting in the 1976 bonded indebtedness figure of $3,570,000. If it can be assumed that an additional $265,000 will be paid in 1976, the 1977 bonded indebtedness figure should be $3,305,000.. Chapter 133 of the Ohio Revised Code

permits a school district to bond itself for school plant improvements up to 9% of the assessed valuation of the school district. Applying this state maximum of 9% of assessed valuation to the projected 1977 assessed valuation figure of $68,858,544, would result in a gross bond potential of $6,197,269 for 1977. Deducting the bonded indebtedness of $3,305,000 from the gross bond potential of $6,197,269, leaves $2,892,269 in additional bonding capacity available for the improvement and expansion of the educational facilities.

In the event that the North Ridgeville school officials find it necessary to postpone action on the improvement and expansion of the educational facilities until 1978, the financial resources should fluctuate further. Assuming that an additional $265,000 will be paid in 1977, the 1978 bonded indebtedness figure should be approximately $3,040,000. Applying the State of Ohio maximum of 9% of assessed valuation to the projected 1978 assessed valuation of $76,914,993, results in a gross bond potential of $6,922,349 for 1978. Deducting the bond indebtedness of $3,040,000 from the gross bond potential of $6,922,349, leaves $3,882,349 in additional bonding capacity available for improvement and expansion of the educational facilities.

It should be emphasized again that the preceding computations are based on a conservative estimate of the annual increase in assessed valuation from 1976 to 1977 and 1978 for the purpose of getting a fix on the amount of money that could be raised to support the recommendations of the study team regarding the improvement and expansion of the educational facilities. It is important that North Ridgeville City School District officials adjust these computational results to the actual assessed valuation data that is finally determined.

TABLE 12

Disposition of School (Renewal) Levies

Year Submitted	Mills	Purpose	Percent Voting For	(Yes or No)
Nov. 1960	7.0	Renewal	76.1	Yes
Nov. 1961	6.8	Renewal	77.9	Yes
Nov. 1962	2.5	Renewal	64.5	Yes
Nov. 1964	3.0	Renewal	70.2	Yes
Nov. 1966	6.1	Renewal	63.2	Yes
May 1969	2.7	Renewal	46.2	No
Nov. 1969	2.7	Renewal	56.6	Yes
Nov. 1972	2.1	Renewal	58.7	Yes
June 1975	5.6	Renewal	49.2	No
Nov. 1975	5.6	Renewal	54.7	Yes

Source: North Ridgeville City School District Staff

TABLE 13

Disposition of School (Additional) Levies

Year Submitted	Mills	Purpose	Percent Voting For	(Yes or No)
Nov. 1962	.5	Additional	58.1	Yes
Aug. 1964	.5	Additional	75.5	Yes
Nov. 1968	3.0	Additional	47.4	No
Dec. 1968	3.0	Additional	43.9	No
May 1969	2.0	Additional	46.2	No
May 1969	3.95	Additional	41.1	No
Nov. 1969	6.3	Additional	56.6	Yes
Nov. 1970	4.3	Additional	33.9	No
Dec. 1970	4.3	Additional	41.6	No
Nov. 1971	4.0	Additional	38.3	No
Nov. 1974	3.9	Additional	29.7	No
Nov. 1974	1.0	Additional	37.2	No
Nov. 1975	2.2	Additional	37.1	No

Source: North Ridgeville City School District Staff

TABLE 14

Assessed Valuations and Rates

Year	Assessed Valuation	Tax Rates in Mills					Assessed Valuation Per Pupil
		Total For All Purposes	For Schools			Total	
			Debt Service	Operating			
				Inside	Outside		
1968	26,877,963	42.03	6.80	6.10	17.68	30.58	8,870.62
1969	27,790,139	43.08	7.80	6.10	17.23	31.13	8,741.79
1970	30,259,625	50.68	7.80	6.10	23.53	37.43	9,003.16
1971	38,874,897	45.95	6.30	6.10	21.70	34.10	10,798.58
1972	40,696,522	46.70	6.30	6.10	21.70	34.10	10,204.74
1973	44,174,076	48.10	6.30	6.10	21.70	34.10	10,178.36
1974	49,740,379	50.10	8.00	6.10	21.70	35.80	10,836.68
1975	55,172,730	51.60	8.00	6.10	21.70	35.80	11,515.91
1976	61,645,966	52.20	7.00	6.10	21.70	34.80	12,596.23

Source: North Ridgeville City School District Staff

RECOMMENDATIONS

PART V: RECOMMENDATIONS

Based on enrollment, financial, and community information supplied by the district staff and on evaluations of existing facilities, the study team has formulated the following recommendations:

1. Due to anticipated increases in middle and senior high school enrollments, it is suggested that the district consider administrative reorganization of the existing K-4,4,4 plan. This reorganization should be accommodated in two phases. The first phase involves moving all fifth and sixth grade pupils into elementary facilities, thus establishing K-6 elementary schools. For the present, the middle school should retain 7-8 only and the senior high should continue on a 9-12 plan. The second phase consists of moving ninth grade pupils into a junior high facility creating a K-6,3,3 organizational plan. The second phase should be instituted as enrollments at the existing senior high school approach maximum capacity.
2. Plans should be initiated as soon as possible for acquisition of a 25-35 acre site and construction of a junior-senior high facility. The capacity of this new structure should be 1000 with initial use intended for grades seven through twelve. As enrollments increase and the second phase of reorganization is instituted, this facility should be considered for junior high use only, housing grades seven through nine.

3. The senior high school should be modified in the following manner to provide a capacity of 1489 pupils.
   a. Provide an additional art room and two additional science laboratories.
   b. Provide for more adequate space to contain cafeteria and food service facilities.
   c. Provide approximately 8000 square feet for a media/learning resource center.
   d. Provide for more adequate space to contain pupil personnel services, such as guidance.
4. Plans should be initiated as soon as possible for acquisition of a new elementary site. Although the five year projected enrollments for grades one through six can be accommodated by existing facilities, continued in-migration beyond the five year projection could easily increase enrollments beyond the present 3100 elementary pupil capacity.
5. Expansion of central administration facilities of the present site should be considered upon completion of the new junior-senior high facility. Reduction of enrollment at the existing middle school to approximately 1000 pupils will provide ample space for anticipated administrative needs.
6. The district staff should develop policies regarding minimum and maximum class sizes and maximum building capacities. As these sizes are approached, plans for new facilities and/or modification of existing ones should be implemented.
7. The district staff should institute and maintain an ongoing preschool census to be used as confirmation of or to make

adjustments in the anticipated number of kindergarten and first grade pupils.

8. The district staff should construct and maintain population spot maps as soon as the census data have been compiled. This information will be invaluable in determining future school sites.

9. The district staff should maintain close ties with business and real estate interests in the immediate area to keep abreast of new developments which may impact future school enrollment trends. Included in these developments are factors relating to industrial growth, any change in present construction trends, zoning changes, and further extensions of sewage and water lines.

The above recommendations are based on a comparison of potential operating capacities with anticipated enrollments for the next five years. The total potential operating capacity for elementary schools, including Liberty, is approximately 3100 pupils. Using the high range projected enrollment for the next five years, anticipated 1-6 enrollments should reach a peak of 2581 in 1980-81. Even with the addition of 400 to 450 kindergarten pupils, the present elementary facilities can adequately house all K-6 pupils. Full utilization of the middle school's instructional space would provide a capacity of approximately 1000 pupils. Projected enrollments for grades seven and eight show a peak of 992 in 1980-81. Therefore, the present facility can adequately house these two grades for the next five years. The present senior high facility could house an enrollment of 1489 with the suggested modifications. Projected 9-12 enrollments surpass this figure, but with construction of a

new facility and subsequent reorganization the potential strain should be alleviated.